THE CRYPTIC SECRETS OF OUR MIND

Edited by PIYUSH GUPTA

The Route to Command Your Subconscious Mind Effortlessly

This book is dedicated to my parents, Mr. Pappu Gupta and Mrs. Asha Devi, as well as my revered teacher, Mr. Kundan Kishore.

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INTRODUCTION

Picture this: You're at a doctor's office, feeling under the weather and seeking relief. The doctor prescribes a new medication, assuring you that it's a powerful remedy for your symptoms. Eager to feel better, you dutifully take the medication as instructed. To your amazement, within hours, you start to notice a remarkable improvement in how you feel – your headache fades, your energy returns, and your spirits lift. But here's the catch: the medication you were given wasn't actually a potent drug but a harmless sugar pill. What you experienced was the *placebo effect* in action.

In this book, you'll discover a myriad of such intriguing psychological phenomena, each explained with clarity and depth. From the subtle biases that shape our everyday decisions to the fascinating quirks of human cognition, these phenomena offer a glimpse into the complexities of the human mind. Through engaging examples and insightful analysis, you'll gain a deeper understanding of how psychology influences our thoughts, behaviours, and perceptions.

But why delve into the intricacies of psychology? Because understanding the workings of the human mind is key to unlocking the mysteries of human behaviour, communication, and interaction. Whether you're a student eager to expand your knowledge, a professional seeking insights into human nature, or simply a curious mind intrigued by the wonders of psychology, this book offers valuable insights and revelations.

Join us on this captivating journey through the labyrinth of the human psyche, where each chapter illuminates a different

aspect of our cognitive world. By unravelling the mysteries of psychology, we hope to inspire curiosity, spark insight, and foster a deeper appreciation for the fascinating complexities of the human mind.

But why focus on biases and phenomena? Simply put, they serve as signposts along the path to self-awareness and understanding. By recognizing these cognitive shortcuts and perceptual distortions, we can navigate the complexities of our own minds with greater clarity and insight. Moreover, understanding these phenomena can empower us to make more informed decisions, communicate more effectively, and foster healthier relationships.

Throughout this book, we will explore each bias and phenomenon in depth, examining its underlying mechanisms, real-world implications, and practical implications. From the subtle nuances of Anchoring Bias to the profound implications of Functional Fixedness, each chapter offers a window into the fascinating world of human psychology.

Whether you're a seasoned psychologist, a curious student, or simply a seeker of knowledge, this book invites you to embark on a journey of discovery. By illuminating the hidden forces that shape our thoughts and behaviours, we hope to shed light on the intricacies of the human mind and inspire a deeper appreciation for the wonders of psychology.

So, band together as we unravel the mysteries of the mind and embark on a quest for understanding in the captivating realm of psychology.

CONFIRMATION BIAS

"Seeing what we want to see, believing what we want to believe."

Confirmation bias, also known as **confirmatory bias**, **my-side bias**, or **congeniality bias**, is a pervasive tendency within human cognition. It involves the inclination to seek out, interpret, and recall information in a manner that aligns with one's pre-existing beliefs or values. Individuals exhibiting confirmation bias tend to selectively favour information that supports their existing views, while disregarding or downplaying evidence that contradicts them. This bias tends to be especially strong when individuals come across information that touches upon subjects they feel strongly about emotionally or that are deeply ingrained in their personal belief systems.

Picture this: you're a detective who is on a mission to crack a case, armed with a theory and a set of questions. But instead of being open to all possibilities, you're already convinced your theory is spot on. So, you craft your questions in a way that guarantees the answers will support your theory. This tactic, known as confirmation bias, is like wearing blinders that only let you see what you want to see.

Take, for instance, a scenario where you suspect a secret number is 3. Instead of asking broad questions like, "Is it even?" or "Is it odd?" you zero in on the question, "Is it an odd number?" Sure, it might seem innocent, but it's a sneaky way to ensure you get the answer you're expecting, regardless of whether it's true or not.

Now, let's delve into a real-life scenario that vividly illustrates confirmation bias: a child custody case. Imagine you're part of a group tasked with deciding who should have custody of a child. This is a weighty responsibility, as it involves determining the future well-being and upbringing of a young life.

As the group deliberates, the discussion initially centres on the positive qualities of each parent. When posed with the question, "Which parent should have custody?" many members of the group instinctively focus on highlighting the nurturing demeanour, stability, and positive attributes of one parent. They may emphasize the loving relationship the parent has with the child, their dedication to their well-being, and their ability to provide a safe and supportive environment.

However, the dynamics of the discussion shift dramatically when the question is reframed to, "Which parent should be denied custody?" Suddenly, the atmosphere changes, and the group's attention pivots towards scrutinizing the perceived shortcomings and negative traits of the other parent. Members might highlight instances of past behaviour or decisions that they deem unfit for a custodial role, expressing concerns about the parent's ability to provide a stable and nurturing environment for the child.

This subtle yet profound shift in framing the question has a profound impact on how individuals perceive the situation. The positive attributes of one parent, which were previously emphasised, may now take a backseat as the focus shifts towards highlighting the flaws and inadequacies of the other parent. This change in perspective significantly influences the group's deci-

sion-making process, potentially swaying their ultimate determination of custody arrangements.

Consider this too: In a study, participants were asked, "Are you happy with your social life?" They tended to report greater satisfaction compared to when asked, "Are you unhappy with your social life?" It's a small tweak, but it shows just how powerful language can be in shaping our perceptions.

Biased search for information, biased interpretation of this information, and biased memory recall, have been invoked to explain four specific effects:

1. *attitude polarisation*: when a disagreement becomes more extreme even though the different parties are exposed to the same evidence
2. *belief perseverance*: when beliefs persist after the evidence for them is shown to be false

Consider a scenario where two friends, Arjun and Piyush, have differing beliefs about a controversial conspiracy theory. Arjun firmly believes in the conspiracy, convinced by compelling online articles and videos. However, Piyush, after thorough research, presents Arjun with concrete evidence debunking the theory. Despite this, Arjun's belief persists, clinging to his initial convictions despite being confronted with evidence to the contrary. This illustrates the phenomenon of belief perseverance, where beliefs stubbornly endure even in the face of contradictory evidence.

3. *the irrational primacy effect*: a greater reliance on information encountered early in a series

Suppose you are at a restaurant browsing through the menu. You notice the first item listed, a signature dish, and immediately feel inclined to order it, despite the other options available. Even as you continue reading through the menu, your mind keeps drifting back to that initial choice, ultimately influencing your decision. This tendency to rely heavily on the information encountered early in the menu, overlooking potentially better options later on, exemplifies the irrational primacy effect.

4. *illusory correlation*: when people falsely perceive an association between two events or situation

Suppose someone believes that drinking a particular brand of energy drink makes them perform better at work. One day, after consuming the drink, they have a successful presentation. From then on, they associate the drink with success. However, on days when they perform poorly despite drinking the same beverage, they overlook the inconsistency and continue to attribute their success to the drink. This illustrates the illusory correlation, where they falsely perceive a connection between consuming the energy drink and their performance.

To encapsulate our exploration of confirmation bias and its manifestations, it's evident that our cognitive processes are not always as objective as we may believe. As we navigate the complexities of perception and decision-making, being mindful of the subtle influences of confirmation bias can empower us to approach information with greater clarity and objectivity, ultimately leading to more informed judgments and decisions. Ad-

ditionally, it serves as a reminder that our perceptions are shaped not only by the information we encounter but also by how it's presented. Confirmation bias subtly nudges us towards reinforcing our pre-existing beliefs, illustrating the intricate dance between our cognition and the world around us.

ANCHORING EFFECT/BIAS

"Where you start is where you anchor, shaping the journey ahead."

You're in search of a new vehicle, and as you walk into and start browsing the showroom, your eyes are drawn to a glossy, luxurious model parked prominently at the front. It's adorned with all the latest features and has a hefty price tag to match. This car becomes your "anchor" – your reference point for what a "good" car looks like, both in terms of features and cost.

Now, as you continue your search, you come across a more modest model, one that fits your needs but doesn't quite boast the same bells and whistles as the luxury car. Despite its lower price, your perception of its value is influenced by that initial anchor. Suddenly, the price seems reasonable, even though it may still be higher than the market average for similar vehicles.

This scenario illustrates the **anchoring effect**, which can be defined as a cognitive bias wherein individuals rely heavily on the initial information they receive – the anchor - when making subsequent judgments or decisions. Anchoring occurs when our judgments or decisions are overly influenced by a reference

point – in this case, the initial impression created by the luxury car.

In a study by Amos Tversky and Daniel Kahneman, participants were asked to multiply natural numbers up to 8 numbers under time pressure. Whether they started with small numbers, as 1 x 2 x 3 … x 8, or larger numbers, 8 x 7 x 6 … x 1, heavily influenced their subsequent estimates. Since participants did not have enough time to calculate the full answer, they had to make an estimate after their first few multiplications. When these first multiplications gave a small answer – because the sequence started with small numbers – the median estimate was 512; when the sequence started with the larger numbers, the median estimate was 2,250. (The correct answer is 40,320.)

The example vividly reveals how our judgments are swayed by arbitrary reference points, distorting our perception of value and leading to decisions that may not align with reality. In the above case, even though they couldn't complete the calculation, their initial steps acted as the anchor driving their estimations.

Another Example:

Let's imagine you're shopping for a new smartphone, and you walk into a store to check out the latest models. As you're browsing, you notice a sign next to a particular phone that says, "Special Limited-Time Offer: ₹40,000 Off!" Your initial reaction might be one of surprise or excitement – after all, who wouldn't want to snag a great deal like that?

Now, here's where the anchoring effect comes into play. Even if you know that the original price of the phone is much higher, seeing that ₹40,000 discount acts as a mental anchor.

Suddenly, your perception of the phone's value shifts. Instead of comparing it to its actual market value, you're now comparing it to the discounted price – which seems like a steal in comparison.

As you consider making the purchase, you find yourself justifying spending more money than you initially planned. After all, you reason, even though the phone is still expensive, it's a thousand dollars cheaper than it was before, so it must be worth it, right?

This scenario highlights how anchoring effects can sway our perceptions and decisions, even when we're aware of the tactic being used. The initial anchor – in this case, the discounted price – sets the stage for how we evaluate the value of the product. Despite knowing the true market value or considering other factors, the anchor exerts a powerful influence on our judgment, leading us to make decisions that may not align with our original intentions.

ANCHORING BIAS IN NEGOTIATION

Picture this: you're at a vibrant marketplace, engaging in a spirited negotiation over a cherished antique. The seller confidently throws out the first price, anchoring the discussion with a hefty figure. Even if it seems steep, that initial number plants a seed in your mind, shaping your perception of the antique's value from the get-go, the very beginning.

As the negotiation progresses, you weigh various factors like the item's condition, historical significance, and market demand. Nevertheless, despite your careful considerations, your thoughts keep circling back to the seller's starting point. It's like a mental

magnet established by the seller, drawing your judgments and decisions towards that initial anchor.

But anchoring bias isn't just a novice's pitfall; even seasoned professionals aren't immune. In a revealing study comparing students with real estate agents, both groups were equally swayed by the initial listing price of a house, regardless of their expertise. It underscores how anchors subtly mould our judgments, often without us realizing it.

Here's the intriguing part – the precision of the anchor matters. Researchers found that participants given a specific price, say ₹6,99,80,000, were less likely to stray from that anchor compared to those presented with a general figure like ₹7,00,00,000. This nuanced insight sheds light on how subtle variations in wording can significantly impact our perception of value, ultimately influencing negotiation outcomes.

Now, the million-dollar question: who holds the upper hand in negotiation – the one setting the first anchor or the counter-anchor? While the latter may seem advantageous, setting the first anchor often yields more economically favourable results, despite potential feelings of regret or dissatisfaction.

In essence, whether you're bargaining for antiques or navigating high-stakes business deals, anchoring bias can wield considerable sway over your judgment and negotiation outcomes. Armed with an understanding of its subtle influence, negotiators can craft more effective strategies and achieve better results in the complex dance of bargaining.

To sum up, the anchoring effect isn't just a psychological quirk; it's a fundamental aspect of human decision-making that

influences both our personal lives and business interactions. From negotiating deals to making everyday purchases, anchoring subtly shapes our perceptions and guides our choices. In personal contexts, understanding how anchoring works can help individuals make more informed decisions and resist being prompted by biased anchors. In the business world, anchoring is a powerful tool that companies can use to influence consumer behaviour, drive sales, and gain a competitive edge. By strategically setting anchors and framing information in a favourable light, businesses can shape customer perceptions, enhance brand value, and ultimately achieve greater success in the marketplace. Whether in everyday life or the business world, recognising and leveraging the anchoring effect is essential for navigating decision-making processes and achieving desirable outcomes.

HALO EFFECT

"Virtue cloaks the evil's guise; goodness hides behind a vice."

Imagine meeting someone who seems perfect in every way – they're charismatic, successful, and well-liked by everyone they meet. You're instantly drawn to them, forming a positive impression that influences how you perceive everything about them. Then, you find out they've cheated on their taxes. Despite this revelation, your positive impression of them remains largely intact. You might even find yourself rationalizing their actions, attributing them to a simple mistake rather than questioning their character. This scenario perfectly illustrates the halo effect in action.

The halo effect is a fascinating psychological phenomenon where our earlier positive or negative overall impression of someone or something clouds our judgment of their individual traits or actions. It's like putting someone on a pedestal, causing us to view them more favourably or infavourably across the board. This cognitive bias can influence our perceptions of people, businesses, ideas, or even places, leading us to make judgments based on unrelated or ambiguous information. Whether we're aware of it or not, the halo effect can significantly impact how we interact with the world around us, shaping our decisions and attitudes in subtle yet profound ways.

The halo effect is sometimes used to refer specifically to when this behaviour has a positive correlation, such as viewing someone who is attractive as likely to be successful and sincere. When this judgement has a negative connotation, such as someone unattractive being more readily blamed for a crime than someone attractive, it is sometimes referred to as the **horn effect**.

Let's say you're browsing through a store, and your eyes lock onto a sleek, stylish smartphone. You've heard great things about this brand, and owning one of their products feels like a status symbol. But what's driving your decision to buy? It's not just the specs or features of the phone; it's the halo effect at play. You associate this brand with quality, innovation, and prestige because of your positive experience with their other products, like their laptops or smartwatches. That favourable impression spills over, influencing your purchasing decision without you even realizing it.

In marketing, the halo effect is like a secret weapon. It's when consumers develop a positive bias towards a particular product because they've had a great experience with other items from the same brand. Take Apple, for instance. The immense popularity of their iPod back in the day wasn't just about music; it created a halo effect that boosted the appeal of all things Apple. Suddenly, their laptops, tablets, and even headphones seemed more desirable simply because they were associated with the iconic iPod. Marketers leverage this phenomenon by strategically promoting products alongside popular TV shows or celebrities, capitalizing on the positive vibes generated by the halo effect to boost sales and brand perception.

The halo effect can also be used in the case of institutions as one's favourable perceptions regarding an aspect of an organization could determine a positive view on its entire operations. For example, if a hospital is known for an excellent open heart and cardiac program, then the community would expect it to excel in other areas as well.

HALO EFFECT AFFECTING PERSONALITY

People's first impressions of others influence their later decision to either approach or avoid those individuals. When people first encounter someone, the information present about that individual is limited; therefore, people will use the information available to assume other characteristics about that person; for instance, observable behaviours such as eye contact, leaning forward, smiling and positive hand gestures (ex. steepling hands) are linked to positive emotions, while avoiding eye contact, leaning back, avoiding touch, and defensive hand

gestures (ex. hands in pockets) or no gestures at all are linked to feelings of detachment.

Besides that, another popular example used when referring to the halo effect is the phenomenon called the *attractiveness stereotype* – a prime illustration of this cognitive bias in action. When confronted with someone who exudes physical allure, we're prone to attribute a myriad of positive traits to them: good health, success, impeccable manners, and heightened social adeptness. However, this bias isn't solely reserved for the conventionally attractive. We also tend to project qualities onto individuals who share similarities with us, whether it's attending the same alma mater or sharing similar life experiences.

THE EXCITING STUDY OF BEAUTY BIAS

A study by Landy & Sigall (1974) demonstrated the Halo Effect, looking at male judgments of female intelligence and competence on academic tasks. Sixty male undergraduate students rated the quality of essays which included both well- and poorly-written samples. One third were presented with a photo of an attractive female as author, another third with that of an unattractive female as author, and the last third were shown neither. On average, most of the participants gave significantly better writing evaluations for the more attractive author. On a scale of 1 to 9, the well-written essay by the attractive author received an average of 6.7 while the unattractive author received a 5.9 (with a 6.6 as a control, i.e. by the unbiased group). The gap was larger on the poor essay: the attractive author received an average of 5.2, the control a 4.7, and the unattractive author a 2.7, suggesting male readers are generally more willing to give physi-

cally attractive females the benefit of the doubt when performance is below standard than those not considered attractive.

Research suggests that men's perception of intelligence is significantly influenced by physical attractiveness. In studies exploring the association between facial attractiveness and perceived intelligence, attractive male faces are often deemed more intelligent by both men and women. This phenomenon underscores the intricate interplay between physical appearance and societal notions of intelligence. However, quite surprisingly, research further infers that women are less susceptible to the influence of physical attractiveness on judgments of intelligence. Perception of their intelligence and smartness by men or women is comparatively very lowly biased by their attractiveness.

The above discussion leads us to introduce briefly the phenomenon of **Body Privilege** or **Pretty Privilege**. This notion covers the fact of economic, social, and political advantages bestowed upon individuals, both men and women, solely based on their physical appearance. In Western societies, men often benefit from being tall and muscular, while women are favoured for adhering to conventional standards of thinness and beauty.

Additionally, this facet of halo effect also drives politics to some extent. Research indicates that perceived physical and vocal attractiveness strongly influence decisions regarding leadership positions. Candidates deemed more attractive are not only perceived as more knowledgeable but also have a higher likelihood of electoral success, highlighting the significant role of appearance in politics.

THE HORN EFFECT/THE REVERSE HALO

Remember, not all impressions are rosy. The flip side of the halo effect, known as the horn effect, the devil effect, or the reverse halo (effect), flips the script, letting a single disliked trait or aspect cast a dark shadow over everything else. Psychologists term this phenomenon a "*bias blind spot*": we tend to link negative traits together, forming a chain of judgments, often sparked by a negative first impression. Imagine a leader so vilified that every action, good or bad, is seen through a lens of suspicion. The Guardian once remarked on this, citing the devil effect in relation to Hugo Chavez: "Some leaders can become so demonized that it's impossible to assess their achievements and failures in a balanced way." For those painted with this dark brush, every misstep is magnified, while their positive deeds go unnoticed or are met with skepticism.

COGNITIVE DISSONANCE

"Brain says 'right,' heart says 'left.'"

Imagine you're deeply passionate about environmental conservation and strongly believe in reducing plastic waste. Yet, every morning on your way to work, you stop at your favourite café and order your coffee in a disposable plastic cup. As you toss the cup into the trash bin, a subtle unease begins to gnaw at you. You're conflicted – your actions are incongruent with your beliefs, creating a sense of dissonance in your mind.

This scenario vividly illustrates what psychologists have named "**Cognitive Dissonance**", a fascinating phenomenon in psychology. Cognitive dissonance can be well defined as the

mental discomfort people feel when their beliefs and actions are inconsistent and contradictory, ultimately encouraging some change (often either in their beliefs or actions) to align better and reduce this dissonance. That is to say, it's that inner turmoil you experience when your actions don't align with your deeply held beliefs or values. In this case, your commitment to environmentalism clashes with your daily habit of using disposable plastics. The discomfort you feel acts as a powerful motivator, urging you to resolve the inconsistency by either changing your behaviour (switching to a reusable cup) or altering your belief (convincing yourself that using disposable cups isn't so bad).

Cognitive dissonance is triggered when individuals encounter information or situations that conflict with their existing beliefs or actions, leading to a sense of discomfort. This discomfort motivates people to seek resolution by either adjusting their beliefs, behaviours, or finding ways to rationalise the inconsistency. In essence, cognitive dissonance reflects the human tendency to strive for internal consistency and harmony in our thoughts and actions, even when faced with conflicting information.

Cognitive dissonance theory explains how individuals navigate the discrepancies between their beliefs and actions to maintain a sense of internal consistency. In social settings, people often find themselves in one of three relationships with reality based on their cognitive and behavioural adjustments:

1. *Consonant Relationship*: This occurs when a person's beliefs or actions align harmoniously with each other. For example, someone who wishes to avoid getting drunk when dining out may choose to order water

instead of wine, demonstrating consistency between their desire and their behaviour.

2. *Irrelevant Relationship*: In this scenario, a person's cognition or action is unrelated to the other, meaning there is no significant conflict between their beliefs and behaviours. For instance, an individual who wants to avoid getting drunk may wear a shirt while out, which is unrelated to their drinking preferences.

3. *Dissonant Relationship*: This arises when there is a clear inconsistency between a person's beliefs and actions. For instance, someone who desires not to become intoxicated while out but ends up drinking more wine anyway experiences cognitive dissonance. This discrepancy creates a sense of discomfort, prompting individuals to resolve the inconsistency by adjusting their beliefs, behaviours, or rationalizing their actions.

Let's have another practical example of Cognitive Dissonance before we move on ahead:

Suppose you're on your way determined to adopt a healthier lifestyle. You've committed to cutting back on sugary snacks and incorporating more fruits and vegetables into your diet. However, one evening after a particularly stressful day at work, you stumble upon a packet of fresh cheesy rasgullas lying alluringly in your fridge, and you find yourself reaching for the rasgullas impulsively. As you indulge in the sugary treat, you're hit with a wave of guilt and disappointment in yourself. You know that consuming excess sugar contradicts your goal of improving your health, and yet here you are, falling for temptation.

In this scenario, you experience cognitive dissonance because your behaviour (eating sugary snacks) comes into conflict with your belief in maintaining a healthy diet. The discomfort arises from the inconsistency between your actions and your health-related goals.

Furthermore, to ease this discomfort, you might justify your behaviour by telling yourself that you deserve a treat after a tough day, or you might downplay the significance of the indulgence by convincing yourself that one slip-up won't derail your entire health journey. Or, alternatively, you might resolve the dissonance by acknowledging the slip-up, reflecting on the underlying reasons for it (such as stress or fatigue), and recommitting to your goal of making healthier choices moving forward.

REDUCTION

The creation and establishment of psychological consistency allows the person affected with cognitive dissonance to lessen mental stress by actions that reduce the magnitude of the dissonance, realised either by changing with or by justifying against or by being indifferent to the existential contradiction that is inducing the mental stress. In practice, people reduce the magnitude of their cognitive dissonance in four ways:

1. Change the behaviour or the cognition ("I'll eat no more of this doughnut.")
2. Justify the behaviour or the cognition, by changing the conflicting cognition ("I'm allowed to cheat my diet every once in a while.")
3. Justify the behaviour or the cognition by adding new behaviours or cognitions ("I'll spend thirty ex-

tra minutes at the gymnasium to work off the doughnut.")

4. Ignore or deny information that conflicts with existing beliefs ("This doughnut is not a high-sugar food.")

SELECTIVE EXPOSURE

Another means to reduce cognitive dissonance is that through *selective exposure*. This theory has been discussed since the early days of Festinger's proposal of cognitive dissonance. He noticed that people would selectively expose themselves to some media over others; specifically, they would avoid dissonant messages and prefer consonant messages. Through selective exposure, people actively (and selectively) choose what to watch, view, or read that fit to their current state of mind, mood or beliefs. In other words, consumers select attitude-consistent information and avoid attitude-challenging information. This can be applied to media, news, music, and any other messaging channel. The idea is, choosing something that is in opposition to how you feel or believe in will increase cognitive dissonance.

For example, a study was done in an elderly home in 1992 on the loneliest residents—those that did not have family or frequent visitors. The residents were shown a series of documentaries: three that featured a "very happy, successful elderly person", and three that featured an "unhappy, lonely elderly person." After watching the documentaries, the residents indicated they preferred the media featuring the unhappy, lonely person over the happy person. This can be attested to them feeling lonely, and experiencing cognitive dissonance watching somebody their age feeling happy and being successful. This study

explains how people select media that aligns with their mood, as in selectively exposing themselves to people and experiences they are already experiencing. It is more comfortable to see a movie about a character that is similar to you than to watch one about someone who is your age who is more successful than you.

In fact, recent research has suggested that while a discrepancy between cognitions drives individuals to crave for attitude-consistent information, the experience of negative emotions drives individuals to avoid counter attitudinal information. In other words, it is the psychological discomfort which activates selective exposure as a dissonance-reduction strategy.

INDUCED COMPLIANCE

In a classic psychological study known as the Cognitive Consequences of Forced Compliance (1959), researchers Leon Festinger and Merrill Carlsmith conducted an experiment involving seventy-one male students at Stanford University. These students were asked to perform mundane and tedious tasks, such as turning pegs a quarter-turn at fixed intervals, for an hour. After completing these tasks, the students were then asked to convince another group of participants that the tasks they had just performed were actually enjoyable and engaging.

Here's where it gets interesting: the participants were divided into three groups. One group was paid twenty dollars ($20) to persuade the others, another group was paid only one dollar ($1), and a control group was not asked to engage in persuasion at all.

After the experiment, all participants were asked to rate the tedious tasks they had performed. Surprisingly, the group that was paid only one dollar rated the tasks as more enjoyable compared to the group paid twenty dollars. The control group, which was not involved in persuasion, rated the tasks least positively.

These findings were indicative of cognitive dissonance. The participants who were paid only one dollar experienced discomfort because their actions (persuading others that the tasks were enjoyable) contradicted their true feelings (finding the tasks boring). However, they were compelled to justify their behaviour by internalizing the belief that the tasks were enjoyable. On the other hand, those paid twenty dollars had a clearer external justification for their actions, which reduced their experience of cognitive dissonance.

In essence, the study demonstrated how people may experience discomfort when their actions conflict with their true beliefs or feelings. They may then engage in cognitive processes to reduce this discomfort, such as convincing themselves that their actions were justified or changing their beliefs to align with their behaviour.

THE FORBIDDEN TOY

In the study, children were given different levels of threats for playing with a desirable toy, the steam shovel, which was labelled as forbidden. Half of the children were warned of severe punishment if they played with it, while the other half were told they'd only face mild punishment. Surprisingly, despite the kids' natural inclination to explore and play, they refrained from

touching the steam shovel when they believed there would be any kind of punishment involved.

Later on, when the threat of punishment was removed and the children were given the freedom to play with any toy they liked, something interesting happened. The children who had been told they'd only face mild punishment were still hesitant to play with the steam shovel, even though the punishment was no longer a concern. This phenomenon puzzled the researchers.

Upon closer examination, it became clear that the children who faced only mild punishment had to struggle with their decision not to play with the steam shovel. They had to find a way to justify their choice to themselves. Since the punishment wasn't severe, they questioned why they hadn't played with the steam shovel earlier, but still refrained from doing so. As a result, they ended up convincing themselves that the steam shovel wasn't as exciting or desirable as they initially thought. This internal justification helped ease their discomfort and resolve the conflict between their desire to play with the toy and their decision to obey the rules.

To wrap up our exploration of cognitive dissonance, let's reflect on the timeless fable of "The Wolf and the Grapes." In this tale, a hungry wolf spots a cluster of ripe, juicy grapes hanging high on a vine. Despite his efforts to reach them, the grapes remain out of his reach. Frustrated and unable to satisfy his hunger, the wolf eventually gives up and walks away, declaring that the grapes were probably sour anyway. This tale illustrates cognitive dissonance as the wolf experiences conflicting thoughts and emotions. Initially, he desires the grapes and makes every effort to obtain them, but when faced with failure,

he must rationalize his inability to succeed. Rather than admit defeat or acknowledge his own shortcomings, he convinces himself that the grapes were undesirable in the first place. This behaviour reflects the cognitive tendency to alter perceptions and beliefs to reduce discomfort and maintain a sense of self-consistency.

FUNDAMENTAL ATTRIBUTION ERROR (FAE)

"Calling others clumsy when they're tripping, but blaming the floor when we're slipping."

Imagine you're in a crowded coffee shop, and you notice someone being short-tempered with the barista because their order took longer than expected. You might immediately think, "Wow, what a rude person!" and attribute their behaviour to their personality—maybe they're impatient or haughty. However, what you may not consider is that this person might be late for an important meeting, and the delay in their order is adding stress to an already hectic schedule.

Instead of considering external factors like the crowded shop or the possibility that the person might be having a stressful day, you attribute their behaviour solely to their personality, labelling them as rude or impatient. This is a classic case of *fundamental attribution error* since you're overlooking situational factors and overemphasizing 'dispositional' factors.

The **Fundamental Attribution Error** can be defined as a cognitive bias where observers underemphasize situational and environmental factors for the behaviour of an actor while overemphasizing apparent dispositional or personality factors. In simpler terms, when observing someone's actions, we spontaneously tend overattribute their behaviours more to who they are as a person, i.e. to their personality, and underplay/underemphasise the circumstances they are in. For instance, if someone is late to a meeting, we might automatically assume it's because they are inherently irresponsible or selfish, neglecting to consider external factors like traffic or unforeseen delays.

Let's have a final look at an exciting study carried out on this psychological phenomenon:

Jones and Harris's study provides a compelling illustration of how the fundamental attribution error can confound our understanding of others' behaviour. They hypothesized that people would attribute freely chosen behaviours to disposition and chance-directed behaviours to situation, based on the correspondent inference theory. However, their hypothesis was confounded by the fundamental attribution error.

In their experiment, participants read essays either in favour of or against Fidel Castro and were then asked to rate the writers' attitudes towards Castro. When participants believed that the writers freely chose their positions, they tended to rate those who spoke in favour of Castro as having a more positive attitude towards him. This aligns with the initial hypothesis that freely chosen behaviours are attributed to disposition.

However, when participants were told that the writers' positions were determined by a coin toss—a situationally determined factor—something unexpected happened. Despite knowing that the writers' positions were essentially random, participants still rated writers who spoke in favour of Castro as having a more positive attitude towards him than those who spoke against him. This indicates that participants were unable to properly account for the situational constraints placed upon the writers and instead continued to attribute sincere belief to them.

In other words, participants couldn't refrain from attributing the writers' attitudes to their disposition, even when the situation clearly dictated their behaviour. This led to the experimental group providing more internal attributions towards the writers, demonstrating the influence of the fundamental attribution error. This study underscores how deeply ingrained this bias can be in our perceptions of others' behaviour, leading us to overlook situational factors and overemphasize dispositional ones.

Conjunction Fallacy

"When the complex seems truer than the plain."

Let me introduce you to our friend Linda. Read the following paragraph which provides her characterisation briefly:

"Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations."

Now you are presented with two options about Linda's occupation; choose the one you think is more probable —

1. Linda is a bank teller.
2. Linda is a bank teller and is active in the feminist movement.

The majority of those asked chose option 2. However, the probability of two events occurring together (that is, in conjunction) is always less than or equal to the probability of either one occurring itself—formally, for two events A and B this inequality could be written as $\Pr(A \wedge B) \leq \Pr(A)$ and $\Pr(A \wedge B) \leq \Pr(B)$. This is known as the **Conjunction Fallacy**, or the **Linda problem**.

For example, even choosing a very low probability of Linda's being a bank teller, say Pr(Linda is a bank teller) = 0.05 and a high probability that she would be a feminist, say Pr(Linda is a feminist) = 0.95, then, assuming these two facts are independent of each other, Pr(Linda is a bank teller and Linda is a feminist) = 0.05 × 0.95 or 0.0475, lower than Pr(Linda is a bank teller).

CHARACTERISATION

The Conjunction Fallacy is a type of cognitive bias which occurs when individuals mistakenly judge the combined probability of two events (in this case, Linda being both a bank teller and a feminist activist) to be higher than the probability of either event occurring alone. This violates the laws of probability which dictate that the probability of a conjunction of events cannot exceed the probability of the individual events.

In the context of Linda's description, Option 2 seems more appealing because it aligns with our mental image of her as an outspoken advocate for social causes. However, statistically speaking, the likelihood of Linda being a bank teller is higher than the likelihood of her being a bank teller who is also involved in the feminist movement.

This cognitive bias highlights our tendency to rely on stereotypes or narratives that seem coherent and representative of a person's character, even if they defy logical probability. It reminds us to critically evaluate our judgments and decisions, especially when faced with complex or ambiguous information.

In another scenario after Linda's, participants were asked to assess the probability of statements regarding Mr. F., a randomly selected individual from a health survey. They were given two options to consider:

Mr. F. has had one or more heart attacks.

Mr. F. has had one or more heart attacks and he is over 55 years old.

Despite the second statement being more specific and thus less likely, a significant portion of participants still chose it. This demonstrated a tendency to favour detailed descriptions over simpler, more probable ones, even though the latter statement was statistically less likely.

These examples shed light on how cognitive biases, such as the tendency to favour representativeness or specificity, can lead individuals to make decisions that defy logical probability.

THE FINAL TEST

In a further follow-up experiment, participants were presented with a unique scenario involving a regular six-sided die. This die had four green faces (G) and two red faces (R). The participants were then asked to predict the outcomes of 20 consecutive rolls of the die, recording the sequence of greens and reds that appeared.

Here's where it gets interesting: participants were told they could choose one sequence from a set of three options. If the sequence they chose matched the actual sequence of rolls, they would win $25.

The sequences presented were:

a) RGRRR
b) GRGRRR
c) GRRRRR

Now, despite the first sequence (RGRRR) being contained within the second sequence (GRGRRR) and being shorter in length, a surprising 65% of participants opted for the longer sequence. This choice defied statistical probability, as the longer sequence inherently includes the shorter one. In essence, by choosing the second sequence, participants were effectively betting on both the first and second sequences occurring in the rolls.

What's even more intriguing is that when the $25 prize was purely hypothetical, meaning participants had nothing tangible to gain, the results didn't significantly differ. This suggests that the bias towards the longer sequence wasn't motivated by poten-

tial monetary gain, but rather by a cognitive tendency to perceive the longer sequence as more representative of a chance sequence.

SERIAL-POSITION EFFECT

"When trips are remembered for the departure and return."

Imagine you're conducting a survey at a music festival, asking attendees to recall the names of the bands they've seen throughout the day. You approach festival-goers as they're leaving the venue and ask them to list as many bands as they can remember, in any order.

Here's how you might expect their responses to reflect the serial-position effect:

1. *Primacy Effect*: Many participants will likely recall the first few bands they saw at the beginning of the day. These bands made the initial impression, and attendees had ample time to encode and consolidate memories of their performances. You might hear responses like "Oh, I remember seeing XYZ band first thing in the morning" or "The opening act really set the tone for the day."
2. *Middle Bands*: As you move through the list, you may notice a drop-off in recall accuracy for bands that performed in the middle of the day. Despite attendees enjoying these performances at the time, the limited time between each performance may have hindered their ability to encode and retain details about these bands. Responses for middle bands might be less fre-

quent and less detailed compared to the first and last bands.

3. *Recency Effect*: Finally, you'll likely encounter a surge in recall accuracy for the last few bands that performed towards the end of the day. These performances are still fresh in attendees' minds, making them easier to remember. You might hear responses like "The headliner was amazing" or "The closing act really brought the energy."

CHARACTERISATION

The experiment conducted above exemplifies what psychologists have named the **Serial-Position Effect**. Serial-position effect refers to the tendency of a person to recall the *first* and *last* items in a series best, and the middle items worst. The term was coined by Hermann Ebbinghaus through studies he performed on himself, and refers to the finding that recall accuracy varies as a function of an item's position within a study list. When asked to recall a list of items in any order (free recall), people tend to begin recall with the end of the list, recalling those items best (the recency effect). Among earlier list items, the first few items are recalled more frequently than the middle items (the primacy effect).

THE PRIMACY EFFECT

When we encounter a series of items or stimuli, such as a list of words or experiences, our brain engages in a complex process of encoding and storing this information in memory. The primacy effect refers to our tendency to remember the first items in a series more effectively than those that come later.

One compelling explanation for the primacy effect is rooted in the way our brains process and store information. The initial items presented are thought to be more effectively stored in long-term memory because of the greater amount of cognitive processing devoted to them. Consider this: when we encounter the first item in a list, we can rehearse it in our minds without any distractions. However, as additional items are presented, each new item must be rehearsed along with the ones that came before it. This means that the first item receives more focused attention and rehearsal, leading to its stronger encoding in long-term memory.

Moreover, the rate at which items are presented plays a crucial role in the strength of the primacy effect. When items are presented quickly, there is less opportunity for deep processing and rehearsal, which can diminish the primacy effect. Conversely, when items are presented slowly, allowing for more time for encoding and rehearsal, the primacy effect tends to be enhanced. Essentially, factors that reduce or enhance the processing of each item also impact its permanent storage in memory.

Additionally, the length of the presentation list has been found to influence the primacy effect. Longer lists tend to reduce the primacy effect, likely because the cognitive resources needed for encoding and rehearsal are spread thin across a larger number of items. In contrast, shorter lists allow for more focused attention on each item, leading to a stronger primacy effect.

Understanding the intricacies of the primacy effect provides valuable insights into how our memory works and how external

factors, such as presentation rate and list length, can influence our ability to recall information accurately.

THE RECENCY EFFECT

You're taking a test where you're asked to recall a list of items you've just studied. As you start jotting down your answers, you find that you can easily remember the items that were presented most recently. This tendency to recall the most recent items more easily is known as the recency effect.

One theory behind the recency effect suggests that these last items are still lingering in your working memory when recall is prompted. Working memory acts as a temporary storage space for information you're actively processing, making it readily accessible for recall. Since the most recent items are still fresh in your working memory, they're easier to retrieve during the test. On the other hand, items in the middle of the list—those that neither benefit from being stored in long-term memory nor are present in working memory—tend to be recalled less accurately.

But that's not the only explanation for the recency effect. Another fascinating factor at play is temporal context. Imagine if you're tested immediately after rehearsing the list. In this scenario, the current temporal context—the time period when you're taking the test—serves as a retrieval cue. As a result, items that were presented most recently, and are thus in sync with the current temporal context, are more likely to be recalled than items studied earlier. It's like your brain's way of using the timing of the test as a clue to retrieve information.

However, the recency effect isn't immune to interference. If you're given a distracting task after studying the list but before

being tested, it can disrupt the recency effect. This is because the distracting task engages your working memory, effectively wiping out the advantage of having the most recent items still fresh in your mind.

Interestingly, the length of the list or the rate at which items are presented doesn't seem to significantly affect the recency effect. Whether you've studied a short list or a long one, or if items were presented quickly or slowly, the recency effect remains consistent, provided that recall happens immediately after the test.

CRANO'S INVESTIGATION HONED IN ON SEVERAL KEY HYPOTHESES:

1. *Change of Meaning Hypothesis*: According to this idea, the items at the beginning of a list establish a thematic framework that participants expect subsequent items to adhere to. Crano proposed that participants may subtly alter the meaning of later items to align with this established theme. For instance, if the initial items create an expectation of a certain topic or category, participants may interpret later items in a way that reduces the deviation from this theme.
2. *Inconsistency Discounting*: This hypothesis suggests that participants tend to disregard information that contradicts or deviates from the pattern established by previous items. In other words, inconsistent information is seen as less valuable or reliable compared to information that aligns with the established theme. Participants may prioritize consistent information, leading to a bias in favour of items that fit the expected pattern.

3. *Attention Decrement Hypothesis*: Crano also explored the idea that the order in which information is presented influences participants' attention and processing. According to this hypothesis, information presented early in a sequence captures greater attention and exerts a stronger influence on participants' judgments and decisions. This attentional bias may contribute to the primacy effect, as participants focus more on the initial items and progressively pay less attention to subsequent ones. However, in situations where participants must continuously engage with incoming information, such as in ongoing tasks, a recency effect may emerge, with recent information holding more sway.

By investigating these hypotheses, Crano sought to unravel the underlying mechanisms driving the primacy and recency effects. Through his study, we gain deeper insights into how cognitive processes shape our perception and memory of sequential information, shedding light on the complexities of human cognition.

BYSTANDER EFFECT

"The more dozens've seen, the less'd intervene"

Imagine you're walking down a busy city street when you suddenly witness someone collapse to the ground, clutching their chest and gasping for breath. As you look around frantically, you notice that several other people are also nearby, but instead of rushing to help, they seem to hesitate, exchanging uncertain glances.

In this moment, you're experiencing the bystander effect first-hand. Despite the urgency of the situation, the presence of other people seems to create a diffusion of responsibility—you assume someone else will step in to help, so you hesitate as well.

Now, let's add a twist to the scenario: you find yourself in a smaller group of people, perhaps with just one or two others nearby. Suddenly, the sense of responsibility feels more immediate and personal. With fewer bystanders, there's less diffusion of responsibility, and you're more likely to take action, whether it's calling for help, performing CPR, or offering assistance in any way you can.

This example vividly illustrates how the bystander effect operates in real-life situations. When surrounded by a large group of bystanders, individuals may feel less compelled to take action, assuming that someone else will intervene. However, in smaller groups or when alone, the sense of responsibility becomes more pronounced, prompting individuals to act decisively in moments of crisis.

Let's look at another practical example:

Suppose you're working in a bustling factory, where the hum of machinery fills the air and workers move about their tasks diligently. One day, you notice a potential safety hazard—a loose bolt on a piece of equipment that could pose a risk to workers if not addressed promptly.

As a conscientious employee, you feel a responsibility to report the issue to your manager or boss. However, as you glance around, you notice that none of your co-workers seem to be taking notice of the hazard. Instead, they carry on with their

tasks, seemingly unaware or unconcerned about the potential danger.

In this scenario, the bystander effect comes into play among the factory workers. Despite each individual worker recognizing the safety hazard, the presence of other co-workers creates a diffusion of responsibility. Each worker may assume that someone else will speak up or take action, leading to a collective hesitancy to report the issue to management.

Individually, each worker may feel the urge to report the safety hazard, recognizing the potential consequences of inaction. However, the perceived social pressure and diffusion of responsibility within the group dampen their sense of personal responsibility, causing them to refrain from speaking up.

As a result, valuable insights, concerns, and ideas from individual workers go unreported, ultimately hindering the overall safety and efficiency of the workplace. This example highlights how the bystander effect can manifest in a workplace setting, impacting communication, decision-making, and ultimately, organisational outcomes.

Bibb Latané and Judith Rodin (1969) staged an experiment around a woman in distress, where subjects were either alone, with a friend, or with a stranger. 70 percent of the people alone called out or went to help the woman after they believed she had fallen and was hurt, but when paired with a stranger only 40 percent offered help.

EMERGENCY VERSUS NON-EMERGENCY SITUATIONS

Latané and Darley performed three experiments to test bystander behaviour in non-emergency situations.[8] Their results indicated that the way in which the subjects were asked for help mattered. In one condition, subjects asked a bystander for his or her name. More people provided an answer when the students gave their name first. In another condition, the students asked bystanders for a dime. When the student gave an explanation, such as saying that their wallet had been stolen, the percentage of people giving assistance was higher (72%) than when the student just asked for a dime (34%). Additional research by Faul, Mark, et al., using data collected by EMS officials when responding to an emergency, indicated that the response of bystanders was correlated with the health severity of the situation.

GROUP INFLUENCE ON EMERGENCY AWARENESS

To test the concept of "noticing", Latane and Darley (1968) staged an emergency using Columbia University students. The students were placed in a room—either alone, with two strangers or with three strangers to complete a questionnaire while they waited for the experimenter to return. While they were completing the questionnaire, smoke was pumped into the room through a wall vent to simulate an emergency. When students were working alone they noticed the smoke almost immediately (within 5 seconds). However, students that were working in groups took longer (up to 20 seconds) to notice the smoke. Latané and Darley claimed this phenomenon could be explained by the social norm of what is considered polite etiquette in public. In most western cultures, politeness dictates that it is inappropriate to idly look around. This may indicate that a person is nosy or rude. As a result, passers-by are more likely to be keeping their attention to themselves when around large groups than

when alone. People who are alone are more likely to be conscious of their surroundings and therefore more likely to notice a person in need of assistance.

SOCIAL PROOF

"The group's vote, guides our boat."

Picture yourself at a lively concert, surrounded by a sea of cheering fans. As the music pulses through the air, you can't help but feel energised by the electrifying atmosphere. Suddenly, the crowd erupts into applause as the lead singer invites everyone to join in a spontaneous dance.

In the midst of this exhilarating moment, you find yourself hesitating. Should you join the impromptu dance party or stay rooted to your spot? Unsure of what to do, you glance around and notice that everyone else seems to be enthusiastically moving to the beat. Without a second thought, you let yourself be swept up in the rhythm, swaying and grooving along with the rest of the crowd.

What just happened? You've just experienced the powerful phenomenon known as social proof. In situations where the appropriate course of action is unclear – like whether to dance at a concert – people instinctively look to others for guidance. We assume that if everyone else is doing something, they must know something we don't. It's a subtle yet potent form of influence that shapes our behaviour in social settings.

Coined by psychologist Robert Cialdini, social proof captures the tendency for individuals to mimic the actions of those

around them. Whether it's deciding what to wear, which restaurant to dine at, or how to react in a group setting, we often take our cues from the behaviours of others. This isn't mere mindless imitation – it's a strategy our brains use to navigate uncertainty and make sense of ambiguous situations.

SHERIF'S LIGHT EXPERIMENT

The most famous study of social proof is Muzafer Sherif's 1935 experiment.[6] In this experiment subjects were placed in a dark room and asked to look at a dot of light about 15 feet away. They were then asked how much, in inches, the dot of light was moving. In reality it was not moving at all, but due to the autokinetic effect it appeared to move. How much the light appears to move varies from person to person but is generally consistent over time for each individual. A few days later a second part of the experiment was conducted. Each subject was paired with two other subjects and asked to give out loud their estimate of how much the light was moving. Even though the subjects had previously given different estimates, the groups would come to a common estimate. To rule out the possibility that the subjects were simply giving the group answer to avoid looking foolish while still believing their original estimate was correct, Sherif had the subjects judge the lights again by themselves after doing so in the group. They maintained the group's judgment. Because the movement of the light is ambiguous the participants were relying on each other to define reality.

In another study on the power of social influence, researchers examined how eyewitness identification can be swayed by the responses of others. Participants were shown a slide of a suspect, followed by a line-up of four men, one of whom was

the suspect. The catch? The slides were presented rapidly, making identification difficult.

Now, here's where it gets intriguing. The participants weren't alone—they were part of a group that included three confederates, individuals secretly working with the researchers. These confederates intentionally gave the same incorrect answer during the identification process.

In some cases, participants were told the task was crucial, with their performance set to be used by police and courts. In others, they were informed it was still in development and their input was just for refining the task.

The results were eye-opening. When participants believed the task was of high importance, they were significantly more likely to conform to the group's incorrect answer, doing so 51% of the time compared to 35% in the low-importance condition.

This study sheds light on how the pressure of a situation and the perceived significance of a task can influence individuals to align their responses with those around them, even when they know they're giving the wrong answer.

Practical Examples:

- Theatres sometimes use specially planted audience members who are instructed to give ovations at pre-arranged times. Usually, these people are the ones who clap initially, and the rest of the audience follows. Such ovations may be perceived by non-expert audience members as signals of the performance's quality.

- In television shows, television studios have discovered that they can increase the perceived "funniness" of a show by playing a pre-recorded laugh track at key moments. They have found that even though viewers find a laugh track annoying, they perceive shows that use canned laughter to be funnier than those that do not.
- Social proof is exploited on social networks such as X (formerly Twitter), Facebook, Instagram and YouTube. The number of followers, fans, views, likes, favourites and even comments that a user has made, positively affects how other users perceive them. A user on X (formerly Twitter) with a million followers is perceived as more trustworthy and reputable than a similar user with a thousand followers, resulting in faster growth of followers and higher engagement and click-through-rates.

FOOT-IN-THE-DOOR TECHNIQUE (FITD)

"A friendly grin, a favour's start,

A small request, a door ajar.

With a nod, they let you in,

Step by step, the game begins."

Imagine you're at a shopping mall, and as you stroll through the bustling aisles, you're approached by a friendly stranger holding a clipboard. They ask if you'd be willing to spare a moment to sign a petition supporting local environmental initiatives. Intrigued and feeling socially responsible, you agree and sign your name without much hesitation.

A few weeks later, you receive an email from the same organization, this time asking for a larger commitment – they're seeking volunteers to participate in a beach clean-up event over the weekend. Surprisingly, you find yourself seriously considering joining the clean-up effort, even though it would require more time and effort than simply signing a petition.

What's happening here is a classic example of the foot-in-the-door technique in action. By initially asking for a small favour – signing a petition – the organization primed you to be more receptive to their larger request later on. Your willingness to comply with the initial, seemingly innocuous request made you more likely to consider and potentially agree to the subsequent, more significant commitment.

This real-life scenario illustrates how the foot-in-the-door technique can be effectively used to gradually escalate the level of compliance, ultimately leading individuals to engage in behaviours they might not have otherwise considered.

DEFINITION

The **Foot-in-the-Door** (FITD) technique is defined as a persuasive strategy where an individual is first presented with a small request or action, which they are more likely to agree to. Subsequently, after compliance with the initial request, a larger

and more significant request is made. The idea is that by agreeing to the initial request, individuals feel a sense of commitment or consistency with their previous actions, making them more likely to comply with the larger request. This technique capitalizes on the psychological principle of consistency, where people tend to align their behaviours with their past actions and commitments.

CLASSIC EXPERIMENTS

In an early study conducted by psychologists, housewives in California were contacted by phone and initially asked if they would answer a few questions about the household products they used. Three days later, the same housewives were contacted again, but this time, they were asked if they would allow five or six men to come into their homes for a 2-hour enumeration of household products, essentially a much larger request. Surprisingly, the researchers found that the women were more than twice as likely to agree to the 2-hour request compared to a group of housewives who were only asked the larger request without the initial smaller request.

In a more recent experiment, individuals were asked to pledge to call for a taxi if they became impaired by alcohol. Half of the participants were also asked to sign a petition against drunk driving, which they all agreed to, while the other half were not asked to sign any petition. Subsequently, when participants were later impaired by alcohol, those who had previously signed the petition (thus complying with a small request) were significantly more likely to comply with the larger request of calling a taxi compared to those who had not been asked to sign the petition.

These examples illustrate the effectiveness of the foot-in-the-door (FITD) technique in persuading people to comply with larger requests, particularly when the initial request is pro-social in nature. FITD tactics have been found to be successful across various settings, including face-to-face interactions and even via email. Research has consistently demonstrated the efficacy of FITD techniques, highlighting their versatility and applicability in influencing human behaviour.

ENHANCING THE EXPERIMENT

The foot-in-the-door technique is also used in many commercial settings and can be illustrated using the door-to-door salesperson who eventually builds up their requests to a final purchase request. In an experiment, subjects were initially asked to have signs in their windows to promote recycling along with varying amounts of incentives ($0, $1, $3) for doing so. This study found that the FITD technique was more effective than any of the incentive strategies in producing behavioural persistence. This is supported by the self-perception theory, which states that the FITD technique is effective only because internal thoughts are what drive people's behaviour. That is, external pressure (such as indebtedness) for compliance is not as effective in increasing compliance.

In another study, participants were given a request that included a "but you are free" statement which reminded the participant that s/he could refuse the request to participate. This condition along with the FITD technique increased the compliance of the participants. These are two extensions to the foot-in-the-door technique that help increase compliance in participants. These techniques can be used in the political, commerce

and public awareness environments. For example, a study showed that having a questionnaire about organ donation increased the willingness of participants to become organ donors. It was found that increasing the number of items in the questionnaire did not necessarily affect the compliance to becoming a donor, that is, having a questionnaire alone was enough to increase the compliance.

A study by Guéguen showed that the foot-in-the-door-technique is not only effective in person, but also online. In his study, he found that asking students for help saving a document as an RTF file via email increased their willingness to complete an online survey emailed to them by the initial requester. This information coupled with work by Swanson, Sherman, and Sherman,[13] which found that students' compliance to an initial, neutral and small request not only increased their willingness to comply with a subsequent larger and anxiety-producing request, but also indicated that the anxiety-producing request was deemed less anxiety-producing than did the control group, has very large implication for possible online uses of the FITD technique. With the privacy and anonymity provided by the internet, the technique could be used online to gather information about anxiety producing incidents in a manner that would not produce as much anxiety as in-person questioning would.

EXAMPLES

When someone expresses support for an idea or concept, that person is more likely to then remain consistent with their prior expression of support by committing to it in a more concrete fashion. A common example undertaken in research studies uses this foot-in-the-door technique: two groups are asked to

place a large, very unsightly sign in their front yard reading "Drive Carefully". The members of one group have previously been approached to put a small sign in their front window reading "Be a Safe Driver", and almost all agreed. In one study, in response to the "Drive Carefully" request 76 percent of those who were initially asked to display the small sign complied, in comparison with only 17 percent of those in the other group not exposed to the earlier, less onerous, request.

Having already shown 'community spirit' by taking part in the campaign to reduce the nation's road carnage – 'stepping forward' as a "good citizen" by giving prominence to the "Be a Safe Driver" sign, a statement to the world – there is social pressure to also agree to a grander, if more inconvenient, version of the same exercise and in order to appear consistent in one's beliefs and behaviour. There may well be other contributors, but it is likely that commitment and consistency play a significant role.

"Can I go over to Suzy's house for an hour?" followed by "Can I stay the night?"

"Can I borrow the car to go to the store?" followed by "Can I borrow the car for the weekend?"

"May I turn in the paper a few hours late?" followed by "May I turn it in next week?"

"First six months interest free", or "No interest for two years".

In all four cases, it is actually easier to remain consistent with the first request by denying the second than by accepting it. For example, in the first request, the requestee has already

agreed to a precise one-hour time period and if immediately asked, likely will not agree to a different time period. However, if there is a delay of days or weeks between the requests, they are more likely to be received favourably.

Applications to Everyday Life

There are a number of studies concerning the foot-in-the door technique and charitable donations. For example, Schwarzwald, Bizman, and Raz (1983) investigated the effectiveness of the FITD technique for door-to-door fundraising. In their study, some of the participants were first asked to sign a petition before being asked to make a donation to the organization (foot-in-the-door condition). Others were not asked to sign a petition before making a donation (control condition). The request to sign a petition was made two weeks prior to the request to make a donation. They found that a greater percentage of people made a donation in the foot-in-the-door condition than in the control condition. Also, they found that making the small request to sign a petition resulted in more money being donated than not making this request.

A further study conducted in 1989 by the Indiana University Southeast and California State University showed that people were more willing to become organ donors after completing a questionnaire about donating organs. It did not matter whether the survey had 5 or 20 questions; it is proven to be just as successful. This survey was conducted with young college students, and the scholars mentioned doing another study with older, less-educated individuals to further support these findings and to broaden the population.

DOOR-IN-THE-FACE TECHNIQUE (DITF)

"Grand appeal, closed door's seal, smaller deal, compliance ideal."

Imagine you're approached by a friend who's organizing a charity event for a local animal shelter. They start off by asking if you'd be willing to donate ₹45,000 to sponsor a pet adoption drive, knowing it's a significant amount that you might not be able to commit to on the spot. Naturally, you politely decline, citing your budget constraints.

However, your friend doesn't give up. Instead, they follow up with a more reasonable request: would you be able to volunteer at the event for a few hours to help with setup and coordination? Compared to the initial hefty donation request, this seems much more manageable, and you find yourself agreeing without hesitation.

What just happened here? Your friend employed the door-in-the-face (DITF) technique. By starting with a large, somewhat unreasonable request, they set the stage for a more modest request that they had in mind all along. The contrast between the two requests makes the second one seem much more appealing and easier to agree to, even though it still involves some level of commitment.

DEFINITION

The door-in-the-face technique is a compliance method commonly studied in social psychology. The persuader attempts to convince the respondent to comply by making a large request that the respondent will most likely turn down, much like a metaphorical slamming of a door in the persuader's face. The respondent is then more likely to agree to a second, more reasonable request, than if that same request is made in isolation. The DITF technique can be contrasted with the foot-in-the-door (FITD) technique, in which a persuader begins with a small request and gradually increases the demands of each request. Both the FITD and DITF techniques increase the likelihood a respondent will agree to the second request.

THE DELINQUENT-AND-ZOO EXPERIMENT

In a classic experiment investigating the effectiveness of the DITF technique, researchers separated participants into three groups.[1] In group 1, experimenters asked participants to volunteer to counsel juvenile delinquents for two hours a week for two years (large request). After their refusal, the group was asked to chaperone juvenile delinquents on a one-day trip to the zoo (small request). Group 2 was given only the small request. In group 3, the experimenter described the large request but asked the participants to perform the small request. 50% of the participants in group 1 agreed to the small request, compared to 17% in group 2 and 25% in group 3. Because compliance for the small request was significantly larger for group 1 than group 2, the DITF technique was successful. Compliance for the small request was also significantly larger for group 1 than group 3, which demonstrates that mere exposure to the more extreme task does not affect compliance as significantly. (in appendix – study 1,2,3,)

THE LOW-BALL

"Starting low, then they rise, commitment grow, the low ball guise."

Imagine you're in the market for a new car, and after browsing for a while, you finally find the perfect one at a dealership. The salesperson is friendly and helpful, guiding you through the features and benefits of the car. You've done your research, negotiated the price, and it's all going smoothly.

Just as you're about to sign the contract and seal the deal, the salesperson mentions that there's been a mistake, and the price they initially quoted you was actually lower than what they can offer. They apologize profusely and explain that they can't honor the original price, but they're willing to give you a slight discount to make up for the error.

Despite feeling a bit disappointed and caught off guard, you've already invested time and energy into this purchase, and the thought of walking away now seems less appealing. Plus, you've already mentally committed to buying the car, envisioning yourself behind the wheel and enjoying the ride. So, reluctantly, you agree to the new, slightly higher price, rationalizing that it's still a good deal considering the quality of the car and the service you've received.

What just happened? You've experienced the low-ball technique in action. The salesperson initially lured you in with a tempting offer, only to raise the price later on, once you're emotionally invested and more likely to agree to the revised terms.

It's a classic example of how the principle of commitment and consistency can be used to influence your decision-making process.

Despite feeling a bit deceived, you ultimately go through with the purchase because you've already committed to buying the car and don't want to back out now. The salesperson strategically exploited your psychological inclination to stick to your initial decision, even when faced with unexpected changes. It's a clever tactic used by sales professionals to increase their chances of closing a deal and maximizing their profits.

DEFINITION

The **Low-Ball** technique is well-known persuasion strategy in which someone makes an initial attractive offer or agreement to another person, only to later change the terms or conditions to something less favourable after the person has already committed to the initial offer. Despite the change, the person is more likely to comply with the revised terms due to their prior commitment and the desire to maintain consistency with their initial decision. This technique exploits the principle of commitment and consistency in human psychology, as individuals tend to feel obligated to follow through on commitments they've already made, even when circumstances change.

BY BUYERS

When used by buyer, the low-ball is an offer for goods or services far lower than the price the buyer is willing to pay, made in the hope that the seller will at least counter-offer a price lower than the original asking price. Sellers looking to maximize profit

but expecting would-be buyers to haggle may conversely make a "high-ball" offer and/or asking price.

BY SELLERS

When a seller makes a low-ball offer, it means that they're presenting an item or service at a price lower than what's necessary to meet their desired profit margin. The idea is to reel in potential buyers with this enticingly low price, only to swiftly raise it later on, thereby boosting profits. Sometimes, sellers also use this tactic to entice customers into purchasing additional, more lucrative products or services. This strategy finds its explanation in *cognitive dissonance* theory. If someone is already thrilled about snagging a great deal and imagining all the future benefits, backing out on the agreement could lead to cognitive dissonance. To avoid this discomfort, individuals tend to downplay the negative impact of any "extra" costs associated with the offer.

BAIT-AND-SWITCH

Bait-and-switch is a form of fraud used in retail sales but also employed in other contexts. First, customers are "baited" by merchants' advertising products or services at a low price, but then, when they visit the store, those customers discover that the advertised goods are not available and are pressured by salespeople to purchase similar but higher-priced ones ("switching").

EXAMPLE

Imagine you're browsing online for a new smartphone, and you come across an ad for a top-of-the-line model at an unbe-

lievably low price. Intrigued, you click on the ad and head to the store's website, excited about the prospect of snagging such a great deal.

However, when you arrive at the store's page, you find that the advertised smartphone is mysteriously out of stock. Disappointed, you decide to visit the store in person to see if they have any available.

Upon arriving at the store, you're greeted by a salesperson who informs you that the advertised smartphone is indeed sold out. But, they quickly add, they have another model available that's similar but slightly more expensive. They assure you it's just as good than the one you originally wanted.

Feeling a bit pressured and eager to make a purchase, you reluctantly agree to take a look at the alternative smartphone. Before you know it, you find yourself walking out of the store with a more expensive device than you had initially planned to buy.

In this scenario, the store used bait-and-switch tactics by luring you in with the promise of a discounted smartphone and then pushing you to purchase a higher-priced alternative. It's a classic example of how retailers can deceive customers with enticing offers only to switch them to pricier options once they're in the door.

Practical Applications Exposed

- A bait-and-switch job offer is when the actual work has large discrepancies with what was described in the job listing or interview.

- A bait-and-switch interview is when a potential employee hires another person to be their stand-in during the job interview process.
- Online sellers use bait-and-switch by showing a photograph of a desired item to get sales, then shipping a cheaper copy of the item or a picture of the item.
- Car dealerships and auto brokers have also been known to use various forms of bait-and-switch or similar tactics, such as advertising vehicles online at what seems like a bargain price, only for the customer to discover that the specific vehicle is no longer available, as well as adding on a plethora of additional fees or even changing the sale price when coming close to closing the sale.

SELF-SERVING BIAS

"Credit we seize, failure we dodge, truth we tease, self-serving lodge."

Imagine you're at work, and your team just completed a project. It's a success, and everyone is celebrating. But when it comes to acknowledging who contributed the most, you find yourself subtly taking more credit than you deserve. You might brush off any mistakes or setbacks, attributing them to external factors like bad luck or someone else's oversight. Meanwhile, when things go well, you're quick to pat yourself on the back, attributing success solely to your own skills and efforts.

This illustrates the tendency of humans to attribute success to ourselves and failure to external factors. It's like wearing rose-tinted glasses that make us see ourselves in a better light while conveniently overlooking our flaws and mistakes.

For instance, imagine a student who aces an exam. They might attribute their success to their own intelligence and hard work. But if they fail, suddenly it's the teacher's fault for being unfair or the exam being too difficult.

DEFINITION

A self-serving bias is any cognitive or perceptual process that is distorted by the need to maintain and enhance self-esteem, or the tendency to perceive oneself in an overly favourable manner. It is the belief that individuals tend to ascribe success to their own abilities and efforts, but ascribe failure to external factors. When individuals reject the validity of negative feedback, focus on their strengths and achievements but overlook their faults and failures, or take more credit for their group's work than they give to other members, they are protecting their self-esteem from threat and injury.

GENDERED DISCREPANCY

Studies have shown a slight discrepancy in males' and females' use of the self-serving bias. In self-report surveys investigating partner interactions of romantic couples, men tended to attribute negative interactions to their partners more than women did. This is evidence that men may exhibit the self-serving bias more than women.

SUNK COST FALLACY

"Prior commitment, logic defied, onward ascent, the sunk cost guide."

Let's consider these scenarios

a) You've purchased a ticket to a movie that you were excited to see. But as the movie progresses, you realise it's not as good as you expected. Instead of leaving and doing something else, you think to yourself, "Well, I've already paid for the ticket, so I might as well stay and see how it ends."

b) You've started a business, and despite your best efforts, it's not performing as well as you hoped. Instead of cutting your losses and moving on to a new venture, you continue to invest money into the failing business because you've already put so much time and resources into it. You convince yourself that if you just invest a little more, the business will turn around, even though the odds are stacked against you.

c) You enrol in a degree program at a prestigious university, but as the coursework progresses, you realise it's not what you expected, and you're not enjoying it, or you realise that it was just a flight of fancy excited by your friends. Despite feeling unhappy and unfulfilled, you decide to continue pursuing the degree because you've already invested significant time and money into it. You reassure yourself that quitting now would be a waste of your previous investments, even though stay-

ing in the program might not lead to the career or satisfaction you desire.

DEFINITION

All the above examples illustrate what we name the "**Sunk Cost Fallacy**" which may well be pithily described as 'throw good money after bad', as the saying goes, while refusing to give in to what could be described as "minimizing losses."

Individuals often persist in failing relationships, rationalizing their decision by citing the considerable investment they've already made, making it difficult for them to walk away. Similarly, in the context of warfare, individuals may be persuaded to continue the conflict under the belief that previous sacrifices would be rendered meaningless unless victory is attained. Furthermore, individuals ensnared in psychologically manipulative schemes often find themselves compelled to persist despite lingering doubts or suspicions about the legitimacy of the endeavour.

Rego, Arantes, and Magalhães highlight the presence of the sunk cost effect in committed relationships. Through two experiments, they demonstrated that individuals who had invested significant resources into a relationship were more inclined to persist in it rather than terminate it. Additionally, they found that individuals who had invested substantial time in a relationship tended to allocate even more time to it. This tendency reflects a manifestation of the sunk cost fallacy, wherein individuals struggle to disregard sunk costs and make rational decisions for the future. Despite the rational course of action being to move on from a failing relationship, the investments of time,

money, and effort often compel individuals to persist, akin to persisting in failed projects.

The sunk cost fallacy is exacerbated by negative influences. Anxious individuals, for instance, tend to feel more compelled to persist with failed endeavours rather than exploring new alternatives when under stress. Studies suggest that this effect is particularly pronounced in people experiencing high levels of stress, indicating that one's psychological state and external environment play pivotal roles in giving rise to the sunk cost fallacy.

The sunk cost effect often leads to 'cost overruns'. In business, this occurs when investments, such as building a factory or conducting research, lose value or become worthless. For instance, imagine $20 million is spent on constructing a power plant, but it remains incomplete and cannot be sold or recovered. It would cost an additional $10 million to finish it, or $5 million to build a different facility with equal value. In this scenario, it's more rational to abandon the power plant project and opt for the alternative facility, even though it means losing the initial investment—because that money is already considered a sunk cost. However, decision-makers may sometimes choose to continue the project despite its inefficiency, driven by incentives to avoid the appearance of a total loss, especially in political or managerial contexts. Decisions made under such circumstances may seem irrational later on, but they are often influenced by various incentives at the time. This distinction highlights the importance of considering both rational decision-making and incentive structures in understanding sunk costs. Interestingly, there are cases where individuals are unusually eager to write off previous investments to pursue new opportunities, which presents a reversal of the typical sunk cost effect.

NOCEBO EFFECT

"Mind's dark cast, symptoms bloom, expectation vast, the nocebo gloom."

The **Nocebo Effect** is said to occur when negative expectations of the patient regarding a treatment cause the treatment to have a more negative effect than it otherwise would have. For example, when a patient anticipates a side effect of a medication, they can experience that effect even if the "medication" is actually an inert substance. The complementary concept, the *placebo effect*, (review the introduction) is said to occur when positive expectations improve an outcome. The nocebo effect is also said to occur in someone who falls ill owing to the erroneous belief that they were exposed to a toxin, e.g. a physical phenomenon they believe is harmful.

Imagine a scenario where a group of patients is participating in a clinical trial for a new medication. Some of them have been informed about potential side effects, while others have not. Despite receiving a placebo pill, those who were warned about possible side effects start experiencing symptoms like nausea and headaches simply because they expect them. Their negative anticipation inadvertently influences their physical response, showcasing the power of the nocebo effect.

Both placebo and nocebo effects are presumably *psychogenic* (i.e. having a psychological origin or cause rather than a physical one), but they can induce measurable changes in the body. One article that reviewed 31 studies on nocebo effects reported a wide range of symptoms that could manifest as nocebo effects,

including nausea, stomach pains, itching, bloating, depression, sleep problems, loss of appetite and severe hypotension (= low blood pressure).

Etymology and Usage

In essence, a nocebo response occurs when a person's symptoms worsen after receiving an inert treatment, known as a placebo, in a drug trial. Despite the placebo containing no active ingredients, the person experiences a decline in symptoms due to adverse expectations. This phenomenon can even negate the pain-relieving effects of anaesthesia. However, it's important to note that these symptoms are not caused by the placebo itself but rather by internal factors within the individual. While some attribute nocebo responses to gullibility, there's no evidence suggesting a consistent tendency to respond to placebos in this manner across different treatments.

Omission Bias

"Passive stance, harm unseen, moral dance, omission bias screen."

Omission bias is the phenomenon in which people prefer omission (inaction) over commission (action) and people tend to judge harm as a result of commission more negatively than harm as a result of omission.

A Solid Example

Some psychologists extended the omission bias to judgments of morality of choices. In one scenario, John, a tennis

player, would be facing a tough opponent the next day in a decisive match. John knows his opponent is allergic to a food substance. Subjects were presented with two conditions: John recommends the food containing the allergen to hurt his opponent's performance, or the opponent himself orders the allergenic food, and John says nothing. A majority of people judged that John's action of recommending the allergenic food as being more immoral than John's inaction of not informing the opponent of the allergenic substance.

An additional real-world example is when parents decide not to vaccinate their children because of the potential chance of death—even when the probability the vaccination will cause death is much less likely than death from the disease prevented.

EGOCENTRIC EFFECT

"Self-important stance, others' wisdom missed, ego's dance, egocentric twist."

Imagine you're working on a group project with classmates. You believe your ideas are the best and most practical, so you dominate the discussion, assuming everyone else shares your perspective. You dismiss alternative suggestions without giving them much consideration. As a result, the final project reflects mostly your ideas, leaving others feeling overlooked and frustrated.

This is an example of egocentric bias, where one tends to rely too heavily on one's own perspective and/or have a higher

opinion of oneself than reality, and often fails to consider the perspectives of others, as illustrated by the above example.

THE STUDY

In a 1993 study conducted in Japan, subjects were asked to write down fair or unfair behaviours that they themselves or others did. When writing about fair behaviour, they tended to start with the word "I" rather than "others". Likewise, they began unfair behaviours with "others" rather than "I". This demonstrates that people tend to attribute successes and positive behaviours to themselves, while placing the burden of failures and negative behaviours on others.[6] Furthermore, in this study there were gender differences detected; Japanese women, compared to men, remembered the behaviours of others more than their own, and were also more probable to characterize fair or unfair behaviour to others compared to themselves.

Another study revealed how egocentric bias influences perceptions of fairness. Participants tended to view overpayment to themselves as fairer than overpayment to others, while considering underpayment to themselves less fair than underpayment to others. However, Greenberg's research indicated that this bias could be mitigated by inducing a state of self-awareness. In his study, participants were placed in front of a mirror, prompting them to become more conscious of themselves. When individuals were in a self-aware state, their perceptions of fairness became more uniform, devoid of bias. Under these conditions, both overpayment and underpayment were rated as equally unfair, regardless of whether it was to themselves or to others. This suggests that self-awareness heightens concerns about fairness, overriding egocentric tendencies.

Interestingly, the Egocentric Bias has many aspects, some of which are succinctly listed below:

a) *Bias Blind Spot*: The bias blind spot is the cognitive bias of recognising the impact of biases on the judgment of others, while failing to see the impact of biases on one's own judgment.

Example: Imagine you're working on a team project, and one of your colleagues always seems to favour their own ideas over others', dismissing alternative suggestions without much consideration. However, when it comes to their own contributions, they believe they're being entirely objective and fair. This is a classic example of the bias blind spot, where someone readily identifies biases in others but fails to recognise their own biases influencing their judgment.

b) *False Consensus Bias/Consensus Bias*: It involves the tendency for people to overestimate the degree to which others agree with them. In other words, they assume that their personal qualities, characteristics, beliefs, and actions are relatively widespread through the general population. Since the members of a group reach a consensus and rarely encounter those who dispute it, they tend to believe that everybody thinks the same way. Additionally, when confronted with evidence that a consensus does not exist, people often assume that those who do not agree with them are defective in some way.

Example: Imagine you're part of a group discussing a controversial topic like climate change. You strongly believe that human activities are the primary cause of climate change, and

you assume that most people share your viewpoint. In group discussions, you notice that everyone seems to agree with you, reinforcing your belief in the widespread consensus on the issue.

However, when you encounter someone who disagrees with your perspective, you might dismiss their opinion as uninformed or misguided. You attribute their dissent to their lack of understanding rather than considering that there might be valid reasons for their viewpoint.

c) *False-Uniqueness Effect*: The false-uniqueness effect is an attributional type of cognitive bias in social psychology that describes how people tend to view their qualities, traits, and personal attributes as unique when in reality they are not.

In fact, people often think that they are more unique than others in regard to desirable traits. This has been shown in a variety of studies, where, for example, people believe that they are better drivers and less risk-taking than the average driver, less prejudiced than the average resident in their town, or even more hardworking in group projects than others when they are actually not.

This cognitive bias is the converse of the false consensus effect, in which people tend to overestimate the extent to which their attitudes and behaviours are normal and typical compared to those of others.

Example: Imagine Rohit, a college student, who believes he's exceptionally good at time management compared to his peers. He always finishes his assignments ahead of schedule, attends all his classes, and still finds time for extracurricular activities. Rohit

thinks he's unique in his ability to balance academics and social life.

However, Jack fails to recognise that many of his classmates also excel in time management. They too juggle multiple responsibilities effectively. Yet, Rohit attributes his success solely to his exceptional skills, ignoring the fact that others achieve similar feats.

This false-uniqueness effect leads Rohit to overestimate his uniqueness in time management abilities, when in reality, many of his peers possess similar skills.

d) *Illusion of Asymmetric Insight*: The illusion of asymmetric insight is a cognitive bias whereby people perceive their knowledge of others to surpass other people's knowledge of them.

A study finds that people seem to believe that they know themselves better than their peers know themselves and that their social group knows and understands other social groups better than other social groups know them.[1] For example: Person A knows Person A better than Person B knows Person B or Person A.

Example: Picture Priya and Vinay, two co-workers who have been collaborating on a project for months. Priya feels she knows Vinay's work habits, preferences, and personality quirks inside out. She confidently believes she understands Vinay better than he understands himself.

On the other hand, Vinay believes he has a deep insight into Priya's character and work style, even considering himself an expert on her behaviours and motivations.

Despite their shared experiences and interactions, both Priya and Vinay hold the illusion of asymmetric insight. They each believe they possess a deeper understanding of the other person compared to how well the other person understands themselves or each other.

e) *Illusion of validity*: The cognitive bias that occurs when individuals overestimate their capability to accurately interpret and predict outcomes based on a set of data. This tendency is especially pronounced when the data exhibit a consistent pattern or tell a coherent story.

Even when individuals are aware of the limitations and factors that may affect the accuracy of their predictions, such as flawed data or unreliable methods of analysis, the illusion of validity persists. In other words, people continue to place unwarranted confidence in their ability to make accurate predictions despite the presence of factors that may compromise the validity of their assessments.

Example: A prime example of the illusion of validity is when a stock market analyst confidently predicts the future performance of a company's stock based on historical trends and patterns in its financial data, despite being aware of the inherent volatility and unpredictability of the market.

f) *Illusory Superiority*: Illusory superiority, also known as *the above-average effect* or the *Lake Wobegon effect*, is a cognitive bias where individuals tend to overesti-

mate their own qualities and abilities compared to others. This bias often leads to the belief that one is better than average in various aspects of life, such as intelligence, task performance, and personality traits.

Example: Imagine you're learning a new skill, like playing a musical instrument. Despite only practicing occasionally and struggling to play simple tunes, you believe you're more talented than your friends who have been playing for years. This is a classic example of illusory superiority, where you overestimate your abilities compared to others, even when the evidence suggests otherwise.

g) *Overconfidence Effect*: a well-established bias in which a person's subjective confidence in their judgments is reliably greater than the objective accuracy of those judgments, especially when confidence is relatively high. The most common way in which overconfidence has been studied is by asking people how confident they are of specific beliefs they hold or answers they provide. The data show that confidence systematically exceeds accuracy, implying people are more sure that they are correct than they deserve to be.

Example: In a spelling task, subjects were correct about 80% of the time, whereas they claimed to be 100% certain. Put another way, the error rate was 20% when subjects expected it to be 0%. In a series where subjects made true-or-false responses to general knowledge statements, they were overconfident at all levels. When they were 100% certain of their answer to a question, they were wrong 20% of the time.

h) *Planning Fallacy*: a common cognitive bias where individuals predict the time required to complete a task with unjustified optimism, often under-estimating the actual time needed. This tendency persists despite the individual's awareness that similar tasks in the past have taken longer than initially planned. Interestingly, this bias affects only one's own task predictions. Conversely, when external observers make predictions about task completion times, they tend to demonstrate a pessimistic bias, overestimating the required time. Essentially, the planning fallacy leads individuals to provide overly optimistic estimates of task completion times, even when past experiences suggest otherwise.

Example: Imagine you're planning a home renovation project. You've researched similar projects online and have a clear timeline in mind. However, you underestimate the complexity of the task and believe you can complete it in a shorter time frame than is realistic. Despite knowing that similar renovations often face delays and unforeseen issues, you're unwarrantedly confident in your ability to finish on time. This illustrates the planning fallacy, where your own estimations are overly optimistic compared to the actual time needed for the project.

i) *Trait Ascription Bias*: the tendency for people to view themselves as relatively variable in terms of personality, behaviour and mood while viewing others as much more predictable in their personal traits across different situations. More specifically, it is a tendency to describe one's own behaviour in terms of situational factors while preferring to describe another's behaviour by ascribing fixed dispositions to their personality. This

may occur because people's own internal states are more readily observable and available to them than those of others.

Example: You're at a party and notice someone sitting quietly in the corner. You might assume they're shy or introverted, attributing their behaviour to their personality. However, if you find yourself in the same situation—sitting quietly in the corner—you might explain it differently; perhaps saying you're tired or not feeling well. This tendency to attribute others' behaviour to their fixed personality traits while explaining your own behaviour based on situational factors is an example of trait ascription bias.

j) *Third-Person Effect*: The third-person effect hypothesis predicts that people tend to perceive that mass media messages have a greater effect on others than on themselves. The third-person effect manifests itself through an individual's overestimation of the effect of a mass communicated message on the general population, or an underestimation of the effect of a mass communicated message on themselves.

Example: Imagine you're watching a political debate on television. You might think to yourself, "Wow, those negative ads are really going to beguile a lot of voters." However, when it comes to your own voting decisions, you believe you're not influenced by such ads, though in reality you surely have been influenced at some point or the other. This is the third-person effect in action—you perceive the media's impact on others as significant, but you underestimate its effect on yourself.

Example 2: When interviewing West German journalists to determine the influence of the press on foreign policy, Davison asked the journalists to estimate the influence editorials had on readers. Although no evidence could be found to support their claims, Davison writes that a common response was, "The editorials have little effect on people like you and me, but the ordinary reader is likely to be influenced quite a lot."

HYPERBOLIC DISCOUNTING

"Quick reward sought, future's worth ignored, impulsive thought, hyperbolic accord."

Let's say you have the option of receiving $50 today or $100 in one month's time. Logically, waiting for the larger sum seems like the better choice, doubling your money for just a month's wait. However, hyperbolic discounting might sway your decision. The allure of instant gratification may lead you to opt for the $50 now, even though it's a smaller amount overall. This tendency to prioritize immediate rewards over larger, delayed ones can be seen in various aspects of life. For instance, it's akin to choosing to spend money on a small luxury item today rather than saving up for a bigger purchase later, or indulging in a quick snack instead of cooking a healthier meal for dinner.

DEFINITION

Hyperbolic discounting is a cognitive bias observed in decision-making, where individuals tend to prefer smaller, immediate rewards over larger, delayed rewards. This bias is particularly

pronounced when the delay in receiving the reward is closer to the present moment rather than in the distant future. In simpler terms, hyperbolic discounting arises from impatience, leading people to prioritise short-term gratification over long-term benefits.

Given two similar rewards, humans show a preference for one that arrives in a more prompt timeframe. Humans are said to discount the value of the later reward, by a factor that increases with the length of the delay.

HYPERBOLIC DISCOUNTING: A STUDY

In a study exploring how individuals value rewards over time, participants were presented with a series of choices to assess their preference for immediate versus delayed gratification. The study aimed to uncover the mental biases that affect how we make decisions about time and rewards.

Participants were offered a choice between receiving a smaller reward immediately and waiting for larger rewards to be delivered at varying future time points. For instance, they could opt to receive $15 right away or delay gratification for three months to receive $30, a year for $60, or three years for $100.

This experiment revealed that participants' valuation of delayed rewards followed a linear succession. Initially, the allure of immediate gratification is strong, but as the waiting period extends, the appeal of delayed rewards increases at an accelerating rate.

When participants were asked to choose between receiving a reward immediately or waiting for it not much longer, like a

week or a month, they exhibited a remarkably high annual discount rate of 277%. This meant that they heavily discounted the value of future rewards when compared to immediate ones. However, as the delay increased, the discount rate decreased.

When presented with the option of receiving the reward after three months instead of immediately, the discount rate decreased to 139%. This indicated that participants were still discounting future rewards but at a lower rate compared to immediate rewards.

Even more intriguingly, when the delay was extended to three years, the discount rate further dropped to 63%. This demonstrated that as the time horizon extended, participants became less impulsive and were willing to wait longer for larger rewards.

In another experiment designed to understand hyperbolic discounting, researchers present participants with scenarios comparing short-term and long-term rewards. For example, they might ask, "Would you rather have one dollar today or three dollars tomorrow?" or "Would you prefer one dollar in a year or three dollars in a year and one day?" It's been observed that many participants opt for the smaller immediate reward over the larger delayed one today, but are willing to wait just one extra day in the future to receive the larger amount instead. This tendency is often referred to as being "present-biased."

Now let me introduce you to a fascinating aspect of hyperbolic discounting. Many subsequent experiments have confirmed that spontaneous preferences by both human and non-human subjects follow a hyperbolic curve rather than the conventional, exponential curve that would produce consistent

choice over time. For instance, when offered the choice between $50 now and $100 a year from now, many people will choose the immediate $50. However, given the choice between $50 in five years or $100 in six years almost everyone will choose $100 in six years, even though that is the same choice seen at five years' greater distance.

GAMBLER'S FALLACY

"Winning streak's past, future's luck sway, error forecast, gambler's play."

Imagine you're flipping a fair coin, aiming for heads, and it comes up tails five times in a row. As you flip it again, you might feel a inclining sense that "heads" is due—that the streak of tails somehow increases the chances of getting heads next. This feeling reflects the gambler's fallacy. In reality, each flip remains a "50/50" chance, independent of past outcomes. So, whether it's the sixth or the sixtieth flip, the odds of heads or tails remain the same.

Additionally, consider someone at a casino who sees the roulette wheel land on black multiple times in a row. They might be tempted to bet heavily on red, believing that black is "overdue" to stop appearing. However, the outcome of each spin is entirely independent, and the odds of landing on red or black remain the same regardless of past results. Similarly, in investing, someone might sell a stock because it has experienced several days of decline, falsely believing that it's bound to rebound soon. In reality, market movements are unpredictable, and past performance doesn't guarantee future success. The gambler's

fallacy serves as a reminder to base decisions on logic and evidence rather than intuition or superstition.

Definition and Origin

The gambler's fallacy, often referred to as the *Monte Carlo fallacy* or *the fallacy of the maturity of chances*, is a cognitive bias rooted in the mistaken belief that if an event has occurred more frequently than expected in the past, it is less likely to happen again in the future, or vice versa. This fallacy arises when individuals perceive randomness in independent events and incorrectly assume that past outcomes influence future probabilities.

The term "Monte Carlo fallacy" derives from a notable historical incident at the Monte Carlo Casino in 1913. During a game of roulette, the wheel reportedly landed on black 26 consecutive times, defying statistical expecta-tions. This streak led players to believe that the subsequent spin was more likely to result in red, reflecting the fallacious assumption that past outcomes influence future probabilities. However, each spin of the roulette wheel remains independent of previous spins, making the outcome of each spin equally probable regardless of past results. In summary, the gambler's fallacy highlights the tendency of individuals to erroneously believe that random events are influenced by past occurrences, leading to misguided perceptions of probability and risk in gambling and other contexts.

Zeigarnik Effect

"Incomplete pursuit, memory recalls, where the Zeigarnik enthrals."

Imagine you're watching a gripping TV series, and just as it reaches a cliff-hanger moment, someone interrupts you. Despite being pulled away from the show, you find yourself constantly thinking about what might happen next. You're more likely to recall the details of that interrupted episode than others you've already finished.

Similarly, imagine you're studying for an exam, diligently working through a set of practice problems. Suddenly, you receive a phone call that interrupts your study session. You step away from your desk to take the call, leaving your study materials open and the problems halfway solved. Later, when you return to continue studying, you find that you can vividly recall the details of the interrupted problems – the formulas you were applying, the steps you had already completed, and the strategies you were using. After eventually completing the entire set of problems, your mind keeps drifting back to the ones you left unfinished, retaining the details of those interrupted tasks more strongly than the ones you completed.

These examples underscore the Zeigarnik effect, illustrating how we tend to recall the details of interrupted or unfinished tasks more vividly than those of completed ones.

DEFINITION

The Zeigarnik Effect is a psychological phenomenon that occurs when interrupted or incomplete tasks are more likely to be remembered than those that have been completed. This effect proposes that when individuals engage in an activity that is subsequently interrupted or left unfinished, their memory retention for that task becomes heightened compared to tasks that

are completed without interruption. Essentially, the mind maintains a cognitive "open loop" for incomplete tasks, leading to increased recall and mental rehearsal of the unfinished activity.

GROUPTHINK

"Unity's grasp, dissent fades, truth's clasp, groupthink cascade."

You're part of a team at work tasked with brainstorming ideas for a new project. As the discussion unfolds, you notice that some members of the team are hesitant to voice their opinions, while others seem reluctant to challenge the prevailing consensus. Despite having reservations about certain ideas, you find yourself going along with the group to avoid conflict and maintain harmony.

Groupthink is like a psychological quicksand that ensnares individuals within a group, compelling them to prioritize harmony and conformity over critical thinking and independent judgment. It's akin to being caught in a bubble of collective agreement, where dissenting voices are silenced, and decisions are made without thorough examination or evaluation. This phenomenon arises from a deep-seated desire for unity within the group, leading members to suppress dissenting opinions and prioritize consensus at all costs. The result? A breeding ground for irrational and dysfunctional decision-making that can have far-reaching consequences.

To prevent falling prey to the pitfalls of groupthink, fostering an environment of open communication and constructive

dissent is paramount. Encourage team members to express diverse viewpoints and challenge prevailing assumptions without fear of reprisal. Implementing mechanisms for anonymous feedback or appointing a devil's advocate can also help stimulate critical thinking and ensure all perspectives are thoroughly considered. Additionally, diversifying the composition of the group can bring fresh insights and perspectives to the table, reducing the risk of homogenous groupthought. Emphasizing the importance of evidence-based decision-making and encouraging individuals to voice concerns or alternative viewpoints can mitigate the influence of groupthink, fostering more robust and effective outcomes.

OUT-GROUP HOMOGENEITY

Imagine you're part of a tight-knit group of friends who all share a love for hiking. You may see your fellow hikers as a diverse bunch, each with their unique personalities, strengths, and quirks. However, when encountering another hiking group on the trail, you might perceive them as a uniform mass, all blending together with similar gear, interests, and behaviours.

Similarly, in a workplace scenario, consider a marketing team consisting of individuals from various departments, including sales, design, and analytics. Despite the diverse backgrounds and expertise of team members, there may be a tendency among some individuals to perceive those from other departments as more similar to each other than they actually are.

For instance, a sales representative might perceive members of the design team as all having a similar creative mind-set, assuming that they share common preferences and approaches to

problem-solving. Similarly, a member of the analytics team might view their colleagues in sales as all possessing similar persuasive abilities and communication styles.

However, this perception of out-group homogeneity overlooks the individual strengths, experiences, and perspectives that each team member brings to the table.

DEFINITION

The **Out-Group Homogeneity** effect, also known as **Out-Group Homogeneity Bias** or **Relative Out-Group Homogeneity**, refers to the tendency of individuals to perceive members of an out-group as more similar to each other than members of their own in-group. This perception often leads to the belief that "they are alike, while we are diverse." Essentially, perceivers tend to generalise about the diversity or variability of out-group members based on central tendencies or typical attributes, rather than recognizing their individual differences.

As a result, stereotypes about out-group members are often overestimated, with individuals attributing uniform characteristics to a diverse range of people. This phenomenon supports the notion that out-group stereotypes are often based on broad generalizations rather than accurate assessments of individual traits.

EMPIRICAL SUPPORT

An example of this phenomenon comes from a study where researchers asked 90 sorority members (= members of a women club) to judge the degree of within-group similarity for their own and 2 other groups. It was found that every participant

judged their own sorority members to be more dissimilar than the members of the other groups.

CROSS-RACE EFFECT

Consider this: In an experiment, researchers revealed that people of other races do seem to look more alike than members of one's own race. When white students were shown faces of a few white and a few black individuals, they later more accurately recognised white faces they had seen and often falsely recognised black faces not seen before. The opposite results were found when subjects consisted of black individuals.

The cross-race effect, also known as the own-race bias or the other-race effect, is a phenomenon closely correlated with the out-group homogeneity effect. It describes the tendency of individuals to more accurately recognise faces of their own racial or ethnic group compared to faces of other racial or ethnic groups. This effect suggests that people are better at distinguishing between faces within their own racial or ethnic group, while faces from other racial or ethnic groups may appear more similar to each other.

The cross-race effect has significant implications for eyewitness identification and the criminal justice system, as it can lead to errors in identifying individuals from different racial or ethnic backgrounds. This bias may contribute to wrongful convictions and the perpetuation of stereotypes about certain racial or ethnic groups.

Fear of Missing Out (FOMO)

"Event overlooked, chance disappears, regret mistook,
FOMO's fears."

Imagine you're scrolling through social media, seeing your friends post about a road trip they're on, a music festival they're attending, or a fancy dinner they're enjoying. As you read through these updates, a sense of unease creeps in – the fear of missing out (FOMO). Suddenly, you start questioning your own choices: Should you have joined them on that trip? Why didn't you know about the festival sooner? Should you re-arrange your plans to go to that restaurant they're raving about?

FOMO isn't just about feeling left out; it's about the fear of making the wrong decision and regretting it later. It's that nagging worry that while you're sitting at home, everyone else is out having the time of their lives. It can stem from something as simple as missing a group chat or hearing about a party after the fact. The constant need to stay connected and in-the-know amplifies this anxiety, driving you to constantly check your phone for updates and feeling a sense of urgency to keep up with what everyone else is doing.

But FOMO isn't just a passing feeling – it can lead to real psychological and behavioural consequences. It can trigger feelings of inadequacy, anxiety, and even depression. It may push you to overcommit yourself, saying yes to every invitation or event out of fear of missing out on something better. And in the

age of social media, where everyone's highlight reel is on display, FOMO can leave you feeling like you're constantly falling short or not measuring up to others' seemingly perfect lives.

DEFINITION

Fear of missing out (FOMO) is the feeling of apprehension that one is either not in the know about or missing out on information, events, experiences, or life decisions that could make one's life better. FOMO is also associated with a fear of regret, which may lead to concerns that one might miss an opportunity for social interaction, a novel experience, a memorable event, profitable investment or the comfort of those you love and who love you back. It is characterized by a desire to stay continually connected with what others are doing, and can be described as the fear that deciding not to participate is the wrong choice. FOMO could result from not knowing about a conversation, missing a TV show, not attending a wedding or party, or hearing that others have discovered a new restaurant. FOMO in recent years has been attributed to a number of negative psychological and behavioural symptoms.

In recent years, fear of missing out (FOMO) has surged, largely driven by technological advancements. Social media platforms, in particular, play a significant role in exacerbating FOMO. While these platforms offer avenues for social connection and engagement, they also present a continuous stream of activities and events in which individuals may not be participating. This constant exposure to others' experiences can foster a sense of exclusion and inadequacy, fuelling FOMO.

The rise of social media has led to a psychological dependence on these platforms, with individuals feeling compelled to stay constantly connected to avoid missing out on any updates or events. This dependency can extend to a broader *pathological internet use*, where individuals exhibit compulsive use of the internet that results in significant impairment in an individual's function in various aspects of life over a prolonged period of time. Young people are at particular risk of developing internet addiction disorder, with case studies highlighting students whose academic performance plummets as they spend more and more time online. Some also experience health consequences from loss of sleep, as they stay up later and later to chat online, check for social network status updates or to further progress in a game.

FOMO is not confined to social networking; it also manifests in other domains such as video gaming, investing, and business marketing. In gaming, players may experience FOMO when they perceive themselves as missing out on in-game events, rewards, or social interactions. Similarly, investors may feel anxious about missing out on lucrative investment opportunities or market trends. In the realm of business marketing, companies may capitalize on FOMO by creating a sense of urgency or exclusivity around their products or services to drive consumer engagement.

SOCIAL MEDIA

Fear of missing out has a positive correlation with higher levels of social media usage. Social media connects individuals and showcases the lives of others at their peak. This gives people the fear of missing out when they feel like others on social

media are taking part in positive life experiences that they personally are not also experiencing. This fear of missing out related to social media has symptoms including anxiety, loneliness, and a feeling of inadequacy compared to others. Self-esteem plays a key role in the levels a person feels when experiencing the fear of missing out, as their self-worth is influenced by people they observe on social media.

FOMO-sufferers may increasingly seek access to others' social lives, and consume an escalating amount of real-time information. A survey in 2012 indicated that 83% of respondents said that there is information overload in regards that there is too much to watch and read. Constant information that is available to people through social media causes the fear of missing out as people feel worse about themselves for not staying up to date with relevant information. Social media shows just exactly what people are missing out on in real time including events like parties, opportunities, and other events leading for people to fear missing out on other related future events. Another survey indicates that almost 40% of people from ages 12 through 67 indicate that social media has led to a higher feeling of the fear of missing out.

VIDEO GAMES

People do not want to feel like they are missing out of being part of the belonging group with respect to video games, which causes a video game addiction. When people align their social identities with the video game they are playing, they fear that not playing enough will outcast them from the group they are playing with, leading to the fear of missing out on being a dedicated member of the community.

INVESTING

The fear of missing out drives crypto-currency investors to chase the next big opportunity, often falling victim to schemes like "pump and dump." In this volatile market, rapid price fluctuations and the allure of quick profits can lead to impulsive decisions. Influencers exploit FOMO to manipulate prices, leaving many investors at a disadvantage.

MARKETING

Advertising and marketing strategies often capitalize on FOMO to promote products and services. For instance, AT&T's "Don't be left behind" campaign leveraged the fear of missing out on fast 4G updates and messages to encourage people to join their network. Similarly, Duracell's Powermat "Stay in charge" campaign highlighted the idea that not using their charging technology would cause users to miss out on important updates, as showcased by dead phones in their ads. Heineken's "Sunrise" campaign took a different approach, framing excessive drinking as a missed opportunity to enjoy the best parts of a party rather than solely focusing on health risks. On the flip side, brands like Nescafé aim to counter FOMO with messages like "Wake up to life." Harnessing FOMO in TV viewers has also been linked to higher broadcast ratings, as real-time updates and social media engagement enhance the viewing experience and encourage participation. For example, real-time tweets during events like the Super Bowl tap into FOMO, driving up TV ratings with their engaging content and social media buzz.

The term FOMO has also inspired offshoots such as **FOBO**, **FOMOMO**, **MOMO, FOJI**, **BROMO**, **NEMO**, **SLOMO** and **JOMO**. Here are the interesting ones:

- FOBO, or *Fear of Better Options*, refers to the anxiety or hesitation experienced when faced with making a decision in a world of abundant choices. This phenomenon arises from the perception that there may be an even better option available, leading to indecision and a reluctance to commit.

Example: As you're shopping for a new smartphone, you feel overwhelmed by the multitude of options available. Each phone seems to offer something unique, making it difficult to settle on one. You worry that if you choose one model, a better one might be released soon, causing you to miss out on the latest technology. This fear of missing out on a superior option paralyses your decision-making process, leaving you unable to make a purchase.

- FOMOMO stands for the *Fear of the Mystery of Missing Out*. FOMOMO refers to a more extreme case of FOMO that occurs when one's mobile device is unusable, resulting in angst caused by the inability to see what one is missing out on social media. Deprived of seeing friends' social media posts, one may automatically assume that those on your social media feed are having a better time than you.
- MOMO, or *Mystery of Missing Out*, encapsulates the sense of unease and curiosity that arises when one's friends or acquaintances are silent on social media platforms. It reflects the tendency to speculate and imagine

what exciting or significant events may be occurring in others' lives, leading to feelings of exclusion or fear of being left out.

Example:

Let's say you wake up one morning and notice that none of your friends have posted anything on social media for the past few days. As you scroll through your feeds, you begin to feel a sense of unease and curiosity. You wonder if everyone is hanging out without you, attending a party, or embarking on a spontaneous trip. Despite not having any concrete evidence, your mind starts to conjure up scenarios of what you might be missing out on. You feel a growing sense of FOMO, fuelled by the mystery of your friends' silence on social media. In an attempt to alleviate your anxiety, you may reach out to them directly or check other platforms for clues about their activities.

- FOJI, or Fear Of Joining In, is the apprehension or reluctance to engage in social media activities, particularly posting content, due to the fear of rejection or a lack of social validation. It manifests as a hesitation to share personal updates, photos, or opinions online out of concern that they may not be well-received or acknowledged by others. FOJI stems from a fear of being ignored, judged, or overlooked by peers, leading individuals to refrain from participating in social media interactions.

Example:

Imagine you've taken a stunning photo during a recent vacation and are excited to share it on your social media accounts. However, as you hover over the "post" button, you hesitate. Thoughts like "What if nobody likes or comments on this?" or "What if it's not as good as other people's posts?" start to creep in. Despite your initial enthusiasm, the fear of rejection or indifference from your online connections holds you back from sharing the photo. You worry that your post will go unnoticed or receive minimal engagement, leading to feelings of embarrassment or inadequacy. Consequently, you decide to refrain from posting altogether, succumbing to FOJI and missing out on the opportunity to share a memorable moment with your online community.

- BROMO, short for "brotherly FOMO," is a term used to describe situations where friends take deliberate actions to prevent others from experiencing FOMO. In essence, it involves friends looking out for each other and making collective decisions to minimize feelings of exclusion or anxiety about missing out on social experiences. BROMO reflects a sense of camaraderie and solidarity among friends, where the well-being and inclusion of each member are prioritized.

Example:

Let's say a group of friends plans a spontaneous road trip over the weekend. As they embark on their journey and begin to capture moments along the way, they notice that one friend, Nikhil, seems a bit quiet and withdrawn. Sensing that Nikhil might be feeling left out or excluded from the fun, the rest of

the group decides to refrain from posting updates or photos on social media during the trip. Instead, they focus on being fully present and inclusive, ensuring that Nikhil feels involved and part of the experience. By practicing BROMO, the friends demonstrate empathy and consideration for each other's feelings, fostering a sense of belonging and connection within the group.

- NEMO, or *Nearly but not fully Missing Out*, describes individuals who are engaged in online networks but do not check them frequently. These individuals may be aware of the activities and updates within their online networks, but they do not feel the same level of urgency or compulsion to constantly monitor or participate in them. Essentially, NEMO reflects a state of partial engagement or involvement in online communities or social networks. These individuals may strike a balance between staying connected and maintaining a degree of detachment or distance from the constant flow of information and interactions on digital platforms.
- JOMO, or the *Joy of Missing Out*, encapsulates the sensation of contentment and satisfaction that arises from deliberately opting out of certain activities or events. It's a contrast to the fear or anxiety associated with FOMO, as it embraces the idea that disconnecting from social media and digital devices can bring about a sense of peace and fulfillment. JOMO advocates for prioritizing present-moment experiences and relationships over the

constant pursuit of online validation or engagement. Rather than isolating oneself, JOMO encourages individuals to carve out intentional periods of disconnection to recharge, reflect, and fully immerse themselves in offline pursuits. It celebrates the liberation that comes from setting boundaries and embracing the simplicity and authenticity of life beyond the digital realm.

- FOBIA, an acronym for *Fear of Being Ignored Altogether*, captures the apprehension and anxiety individuals feel about not receiving acknowledgment or recognition in the digital sphere. In today's hyper-connected world, where social media and online presence often dictate one's perceived social status or worth, FOBIA highlights the pervasive need for validation and acceptance through digital interactions. It reflects the underlying fear of being overlooked or marginalized in the online community, leading individuals to prioritize maintaining an active online presence to garner attention and validation from others. FOBIA underscores the reliance on digital platforms for self-affirmation and the fear of being rendered invisible or irrelevant in the virtual landscape. It manifests as a constant pressure to engage, share, and participate online in order to feel validated as a human being, perpetuating a cycle of dependence on digital validation for one's sense of identity and worth.

SELECTIVE PERCEPTION

"Opinions embraced, contradictions erased, truth misplaced, selective perception graced."

Imagine you're in a heated political debate with a friend who has opposing views. As you present evidence and arguments supporting your position, your friend seems unmoved and dismisses your points. However, when they present their counterarguments, you find flaws and inconsistencies but choose to overlook them.

In another scenario, consider watching a news segment on a controversial topic. If you strongly identify with a particular political ideology, you might be more inclined to perceive the information presented in a way that supports your viewpoint, even if the facts are presented objectively. You may selectively focus on arguments or statistics that reinforce your beliefs while disregarding those that challenge them. This biased perception allows you to maintain consistency in your beliefs and avoid cognitive dissonance.

These phenomena exemplify *selective perception*, where individuals tend to notice and remember information that aligns with their pre-existing beliefs while ignoring or quickly forgetting contradictory evidence.

DEFINITION

Selective perception refers to the cognitive bias wherein individuals tend to notice and remember stimuli that align with their existing beliefs, values, or opinions, while disregarding or quickly forgetting information that contradicts them. This bias can manifest in various contexts, such as interpersonal relationships, education, and media consumption. For example, a teach-

er may show favouritism towards certain students, overlooking their shortcomings or ignoring the progress of other least favourable ones. Similarly, when exposed to mass media, individuals may selectively perceive information that confirms their preconceived notions, filtering out dissenting viewpoints. Psychologists suggest that this phenomenon occurs automatically, influencing how individuals interpret and process incoming information.

In a classic study illustrating selective perception, viewers watched a filmstrip of a heated Princeton-Dartmouth football game. Surprisingly, Princeton viewers reported witnessing almost twice as many rule violations by the Dartmouth team compared to Dartmouth viewers. In fact, one Dartmouth alumnus didn't notice any infractions by his alma mater's team and mistakenly believed he had only received part of the film, requesting the rest. This demonstrates how individuals tend to perceive information in a way that aligns with their pre-existing biases or beliefs, even in situations where the facts are objectively the same for everyone.

EFFECT ON ADVERTISING

Selective perception poses a challenge for advertisers, as consumers may selectively engage with certain ads while ignoring others based on their existing beliefs about the brand.

In the early 1960s, advertising researcher Seymour Smith uncovered evidence of selective perception in advertising research. He defined it as "a process by which individuals filter in or out advertising material they encounter, influenced by their attitudes, beliefs, usage preferences, conditioning, and more."

Individuals who already have positive associations with a brand, either through past purchases or favourable perceptions, are more likely to notice and engage with advertising content related to that brand. This phenomenon has significant implications for advertising research, as any analysis conducted post-advertising must carefully control for pre-existing differences among individuals who were aware of the advertising versus those who were not. Failure to do so could lead to flawed conclusions about the impact of advertising on attitudes and buying behaviour.

Actor-Observer Asymmetry/Bias

"Own actions context-bound, others' traits found, bias unbound, actor-observer asymmetry renowned."

Imagine you're driving to work, running a bit late due to unexpected traffic. As you navigate through the congestion, you accidentally cut off another driver while changing lanes. In this situation, you're likely to attribute your action to the external factors—the heavy traffic and your rush to get to work on time. You might think, "I had no choice; the traffic was terrible, and I needed to merge quickly."

However, if you observe another driver making the same manoeuver, your perception might change. You might attribute their behaviour to their personality, thinking, "That driver is so aggressive and reckless; they must have a disregard for others' safety."

Similarly, let's say you're at a party with a friend, and you notice that they seem quiet and withdrawn throughout the evening. When you ask them what's wrong, they explain that they're feeling tired because they had a long day at work and didn't get much sleep the night before. In this case, you're likely to attribute their behaviour to the situational factors—their exhaustion from work and lack of sleep.

Now, imagine you're at the same party, and you see someone you don't know very well sitting alone in a corner, appearing distant and disengaged. You might assume that this person is naturally introverted or unfriendly, attributing their behaviour to their personality traits rather than considering any situational factors that could be influencing their demeanour.

DEFINITION

The above examples illustrate a psychological bias of "*Actor-Observing Asymmetry*", parallel to the Fundamental Error Effect. AOA refers to the bias one makes when forming attributions about the behaviour of others or themselves. When people judge their own behaviour, they are more likely to attribute their actions to the particular situation than to their personality. However, when an observer is explaining the behaviour of another person, they are more likely to attribute this behaviour to the actors' personality rather than to situational factors.

SPOTLIGHT EFFECT

"Under the glare, actions magnified, spotlight's snare, self-conscious tide."

Imagine you're at a party and you spill a drink on your shirt. Suddenly, you feel like everyone in the room is staring at you, judging your clumsiness. You might even consider leaving early, convinced that everyone will remember this embarrassing moment forever. However, in reality, most people are too preoccupied with their own conversations and activities to pay much attention to your mishap. They might glance over briefly, but their focus quickly returns to their own affairs.

This scenario illustrates the spotlight effect in action. You feel like you're under a spotlight, with all eyes on you, when in fact, most people barely register your blunder. The tendency to overestimate how much others notice and remember our actions stems from our natural self-centeredness. We forget that while we are the centre of our own world, we are not the centre of everyone else's. This phenomenon becomes even more pronounced when we do something out of the ordinary, like spilling a drink, leading us to believe that our actions are far more conspicuous than they actually are.

Let's consider another scenario.

Let's say you're giving a presentation at work, and you stumble over your words during a critical point. Instantly, you feel a wave of self-consciousness, convinced that everyone in the room noticed your mistake and is silently judging you. You might even find it difficult to focus on the rest of your presentation, preoccupied with thoughts of how you've embarrassed yourself in front of your colleagues.

In reality, while some people may have noticed your stumble, most are likely more concerned with the content of your presentation or their own tasks. They might offer you a support-

ive smile or nod, but they're unlikely to dwell on your mistake as much as you are.

In social situations, embarrassment can amplify the spotlight effect, a phenomenon where individuals feel like they're under a magnifying glass. For instance, wearing an embarrassing t-shirt can make someone hyper-aware of how others perceive them. The timing of the embarrassing exposure matters too: immediate embarrassment tends to intensify the spotlight effect, especially in decision-making scenarios. On the other hand, if the exposure happens later, the effect tends to lessen.

Moreover, the spotlight effect influences how we perceive our own contributions in group settings. People often overestimate the impact of their ideas and actions on others. Within a group, individuals may believe that their contributions are more significant than those of their peers and assume others share this perception.

Research on the spotlight effect also delves into how individuals perceive their own actions and believe others judge their performance. Gilovich, Medvec, and Savitsky conducted studies to explore this aspect. In situations involving large, interacting groups, such as a class lecture or athletic competition, attention is divided between individuals and the group's actions. However, individuals tend to overestimate how much attention is solely on them, leading to an exaggerated fear of negative judgment from peers.

Furthermore, the researchers found that in scenarios with a dedicated audience member whose sole role is observation, like a performance or presentation, the spotlight effect is not overestimated. In these situations, the focus of the audience's attention

is clearly on the individual, reducing the likelihood of misjudgement due to the divided attention present in other group settings.

SPOTLIGECTOPHOBIA / -IC [/ˈspɒtlɨgektəˌfəʊbɨə/]

Allow me to introduce a novel and rather amusing term, "Spotligectophobia," coined by yours truly, Piyush. As you've likely guessed, it refers to the persistent fear of being watched or stared at, or more simply, the intense experience of the psychological bias known as the spotlight effect. From this, we derive the adjective and noun "spotligectophobic," describing someone excessively experiencing the spotlight effect, or simply put, someone suffering from spotligectophobia.

Now the million-dollar question – ARE YOU A 'SPOTLIGECTOPHOBIC'?

[However, there is a well-established terminology to describe it which is 'scopophobia', whereof adjectival form is 'scopophobic'. The term I have derived should just better be used in humorous contexts.]

LEARNED HELPLESSNESS

"Repetitive blows, effort fades, disbelief grows, learned helplessness pervades."

Imagine a mouse in a laboratory maze, subjected to electric shocks that it cannot predict or control. Initially, the mouse frantically scurries around, desperately seeking an escape route. However, after enduring repeated shocks without finding

any way to avoid them, the mouse eventually becomes resigned to its fate. It stops trying to escape, even when presented with clear opportunities to do so.

Consider a student struggling with a difficult subject in school. No matter how hard they study or seek help, they continue to receive poor grades. Over time, they may start to believe that their efforts are futile, leading them to give up trying altogether. As time goes on, this student may find themselves avoiding studying altogether, convincing themselves that no matter how much effort they put in, they won't see any improvement in their grades. They might even stop attending classes or participating in discussions, resigned to the idea that they're simply not cut out for success in that particular subject. This sense of helplessness can begin to seep into other areas of their academic life, causing them to doubt their abilities across the board.

Similarly, imagine a person in a toxic work environment where they constantly face criticism and micromanagement from their boss. Despite their best efforts to improve or seek alternative employment, they feel powerless to change their situation. Eventually, they may succumb to a sense of helplessness, resigning themselves to enduring the negativity day after day.

In each of these scenarios, the individual's belief in their inability to control their circumstances becomes ingrained over time. Even when opportunities for change present themselves, they may fail to recognise them or lack the motivation to pursue them. This disposition can be a pervasive and debilitating condition, affecting not only the individual's behaviour but also their overall well-being and quality of life.

DEFINITION AND REAL-EXPERIMENT

Learned helplessness is a behavioural pattern observed in individuals who have experienced repeated and uncontrollable negative stimuli. Initially, it was believed that this behaviour stemmed from the individual accepting their lack of control and ceasing efforts to escape or avoid the unpleasant situation, even when alternatives were available. This state was termed "learned helplessness." However, neuroscience has challenged this notion, revealing that the brain's default assumption is the absence of control, with the feeling of helplessness learned over time in response to prolonged exposure to aversive stimuli. This understanding suggests that learned helplessness can be unlearned when individuals are no longer subjected to such adverse conditions.

THE DOG AND SHOCK EXPERIMENT

American psychologist Martin Seligman began researching learned helplessness in 1967 at the University of Pennsylvania, motivated by his interest in depression. This research expanded through experiments by Seligman and others. One of the initial experiments, led by Seligman and Overmier, involved three groups of dogs. In the first part, dogs were placed in harnesses and later released. The second and third groups were "yoked pairs." Dogs in the second group received electric shocks randomly, which they could end by pressing a lever. Each dog in the third group was paired with a dog from the second group. When a dog in the second group received a shock, its counterpart in the third group experienced a shock of the same intensity and duration, but their lever didn't stop the shock. Consequently, the shocks seemed random and inescapable to the dogs in the

third group, leading to learned helplessness.

In Part 2 of the experiment, the same three groups of dogs were tested in a shuttle-box apparatus (a chamber containing two rectangular compartments divided by a barrier a few inches high). All of the dogs could escape shocks on one side of the box by jumping over a low partition to the other side. The dogs in Groups 1 and 2 quickly learned this task and escaped the shock. Most of the Group 3 dogs—which had previously learned that nothing they did had any effect on shocks—simply lay down passively and whined when they were shocked.

From these experiments, it was thought that there was to be only one cure for helplessness. In Seligman's hypothesis, the dogs do not try to escape because they expect that nothing they do will stop the shock. To change this expectation, experimenters physically picked up the dogs and moved their legs, replicating the actions the dogs would need to take in order to escape from the electrified grid. This had to be done at least twice before the dogs would start wilfully jumping over the barrier on their own. In contrast, threats, rewards, and observed demonstrations had no effect on the "helpless" Group 3 dogs.

Subsequent experiments have further validated the detrimental impact of feeling powerless over an unpleasant stimulus. For instance, in one study, individuals were tasked with mental

exercises amidst distracting noise. Surprisingly, those who had the ability to silence the noise seldom chose to do so, yet they performed markedly better than those who lacked this control. Merely having the option to exert control significantly mitigated the disruptive effects of the noise. In a separate 1992 study, it was demonstrated that the absence of a link between actions and outcomes when tackling chess problems induces a state of learned helplessness, affecting chess players across all skill levels, from novice enthusiasts to seasoned professionals. The severity of these effects was directly proportional to the similarity between the conditions during the study and the actual chess-playing task.

The Famous Elephant Illustrating Learned Helplessness

One of the most famous and conspicuous examples of learned helplessness can be observed in the majestic elephants of the circus world. Despite their enormous strength and power, these magnificent creatures often stand quietly tethered to a small stake in the ground by a thin rope tied to their leg. Passersby might wonder why such mighty animals, capable of toppling trees with a mere flick of their trunk, would submit to such a seemingly fragile restraint.

The answer lies in a phenomenon deeply ingrained in the psyche of these intelligent beings. As young calves, they are initially tied to heavy chains or sturdy posts that they cannot break free from, no matter how hard they try. Over time, they learn that struggling against their restraints is futile, and they resign themselves to their perceived lack of control.

Even as fully grown adults, when presented with a flimsy rope and a small stake, these elephants do not attempt to break free. Their past experiences have instilled in them a learned helplessness, leading them to believe that escape is impossible, regardless of their true strength and capability.

PAREIDOLIA

"Nature's canvas, patterns arise, mind's enchantment, pareidolia prize."

Have a look at the pictures bellow, and tell me what it is that strikes your mind:

DEFINITION

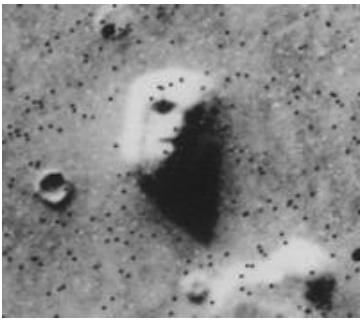
Pareidolia (/ˌpærɪˈdəʊliə/), a term derived from the Greek words "para" (meaning beyond) and "eidolon" (meaning image), refers to the intriguing tendency of the human mind to perceive recognizable patterns or meaningful interpretations in ambiguous or random stimuli, particularly visual ones. This phenomenon occurs when individuals detect familiar objects, shapes, or even faces in clouds, stains, or natural formations, where no such actual representation exists. It's as if our brains are hardwired to find order and meaning in the chaos of the world around us. Pareidolia is often regarded as a subtype of *apophenia*, which encompasses the broader concept of perceiving connections or patterns in unrelated or meaningless data. This intriguing aspect of human perception sheds light on the complexity of the brain's cognitive processes and highlights the innate human inclination to seek familiarity and significance even in the most abstract or elusive stimuli.

Common examples abound, such as the perception of animals, faces, or objects within cloud formations, a timeless activity that sparks creativity and imagination. Additionally, pareidolia manifests in seeing faces in inanimate objects, a peculiar yet widespread occurrence that underscores the brain's inclination to seek patterns and familiarity in the environment. Lunar pareidolia exemplified by phenomena like the Man in the Moon or the Moon rabbit, further showcases this tendency, as individuals perceive distinct shapes or figures on the lunar surface. Furthermore, the concept of pareidolia extends beyond visual stimuli to include auditory experiences, such as discerning hidden messages in recorded music played in reverse or altered speeds. This auditory pareidolia also encompasses hearing voices or mu-

sic in random noise, such as the hum of air conditioners or the whir of fans, highlighting the intricate interplay between perception and interpretation in the human psyche.

MIMETOLITHS

A mimetolithic pattern is a fascinating geological phenomenon where rocks, through the intricate interplay of formation, weathering, and erosion, come to mimic recognizable forms, often evoking images of familiar objects or figures. While these patterns emerge from random processes inherent to geological evolution, they possess a striking resemblance to various entities, sparking intrigue and speculation among observers. One of the most renowned examples of a mimetolith is the enigmatic "Face on Mars," a captivating rock formation captured in certain satellite photos of the Martian surface, bearing an uncanny resemblance to a human face. However, it's



important to note that most mimetoliths dwarf the subjects they emulate in size, with instances like cliff profiles exhibiting profiles reminiscent of human faces, showcasing the awe-inspiring capacity of nature to produce intriguing and visually captivating patterns that blur the lines between reality and perception.

MARTIAN CANALS – AN ILLUSION

A notable example of pareidolia occurred in 1877, when observers using telescopes to view the surface of Mars thought that they saw faint straight lines, which were then interpreted by some as canals (see *Martian canals*). It was theorised that the canals were possibly created by conscious beings. This created a sensation. In the next few years better photographic techniques and stronger telescopes were developed and applied, which resulted in new images in which the faint lines disappeared, and the canal theory was debunked as an example of pareidolia.

In his notebooks, *Leonardo da Vinci* wrote of pareidolia as a device for painters, writing:

> *"If you look at any walls spotted with various stains or with a mixture of different kinds of stones, if you are about to invent some scene you will be able to see in it a resemblance to various different landscapes adorned with mountains, rivers, rocks, trees, plains, wide valleys, and various groups of hills. You will also be able to see divers combats and figures in quick movement, and strange expressions of faces, and outlandish costumes, and an infinite number of things which you can then reduce into separate and well-conceived forms."* - *Leonardo da Vinci*

The Jurist

The Jurist by *Giuseppe Arcimboldo*, 1566. What appears to be his face is a collection of fish and poultry, while his body is a collection of books dressed in a coat.

ENDOWMENT EFFECT

"Ownership's reign, value ascends, attachment's flame, endowment effect tends."

Let's imagine you're at a garage sale, browsing through various items on display. Among the clutter, you come across a vintage vinyl record player that catches your eye. As you examine it, the seller approaches and mentions they're willing to part with it for $50. You hesitate, unsure if it's worth the price. However, after a brief internal debate, you decide to make the purchase, handing over the cash and proudly carrying your new acquisition home.

Now, fast forward a few weeks. You've enjoyed listening to your favourite records on the vintage player, but you stumble upon another garage sale where a similar record player is up for sale. The price? $50, just like the one you bought. However, this

time, you find yourself hesitating. Despite the similarity in value, you're reluctant to part with your current record player, even considering acquiring a second one.

Similarly, let's say you've had a favourite coffee mug for years. It's chipped and worn, but it holds sentimental value because it was a gift from a dear friend. One day, while browsing through a store, you come across an identical mug for sale at a reasonable price. Despite the fact that the new mug is identical in every way and offers no functional advantage over your current one, you find yourself hesitating to make the purchase. You feel attached to your old mug and are reluctant to part with it, even though acquiring a new one would be a logical decision.

This reluctance to give up your current possession, even when presented with an opportunity to replace it with an identical item, exemplifies the endowment effect.

These scenarios exemplify the *endowment effect* in action. When you owned the record player, its perceived value increased in your eyes, leading you to be more attached to it and less willing to part with it, even in exchange for an identical item. This psychological bias towards retaining what we own, regardless of objective value, highlights the intricate interplay between ownership, attachment, and decision-making processes.

DEFINITION

The endowment effect, also known as divestiture aversion, refers to the tendency for people to place higher value on objects they own compared to identical objects they don't own. This psychological phenomenon is based on the principle of loss aversion, which suggests that people prefer avoiding losses

over acquiring equivalent gains. In essence, ownership creates an emotional attachment that leads individuals to overvalue their possessions.

This concept is commonly illustrated in two scenarios. First, in a valuation paradigm, individuals demonstrate a higher willingness to accept (WTA) compensation for giving up an object they own compared to their willingness to pay (WTP) to acquire the same object when they don't own it. This discrepancy exists even when there's no rational basis for attachment to the item. For example, individuals may demand a higher price to sell a mug they already own than they would be willing to pay to purchase an identical mug.

Second, in an exchange paradigm, individuals exhibit reluctance to trade their possessions for items of similar value. Even when presented with an offer to exchange their possession for another item of equivalent worth, individuals are often unwilling to make the trade. For instance, participants who were initially given a pen and later offered a coffee mug of equal value were reluctant to trade, and conversely, participants who initially received the coffee mug were also unwilling to trade it for the pen.

In both scenarios, the endowment effect highlights the influence of ownership on individuals' perceptions of value and their reluctance to part with possessions, even when rational economic principles would suggest otherwise. This tendency underscores the complex interplay between emotions and decision-making processes in human behaviour.:

The endowment effect is evident in various studies. For instance, Carmon and Ariely found that people valued NCAA final four tournament tickets they owned (WTA) 14 times more

than what they were willing to pay for them (WTP). Similarly, Hossain and List observed that workers were more motivated to keep a provisionally awarded bonus than to earn a potential one. This effect has been observed across different populations and goods, including children, great apes, and new world monkeys.

Status Quo (bias)

"Familiar reign, change's scorn, comfort's chain, status quo's born."

Imagine you have been using the same smartphone model for the past three years. It's familiar, you know how to navigate all its features, and it gets the job done, even though it's a bit slow and the battery life isn't what it used to be. You know there are newer models available with better cameras, faster processors, and longer battery life, but upgrading to a new phone would require time and effort to learn the new interface, transfer all your data, and set everything up again.

Even though a new phone would objectively be better and improve your daily experience, you decide to stick with your old phone. This decision is influenced by status quo bias—a preference for maintaining your current state of affairs rather than undertaking the action to change it. The current phone, despite its shortcomings, is your baseline. Any change from this baseline, even if it's potentially positive, is perceived as more effortful and less appealing because it disrupts your familiar routine.

Similarly, imagine you have been going to the same restaurant every Friday night for years. The food is decent, the prices

are reasonable, and the staff knows you by name. You have a favourite dish that you order almost every time. Recently, a new restaurant opened up nearby that has received rave reviews. Friends and family have been encouraging you to try it, saying the food is amazing and the ambiance is great.

Despite the glowing recommendations, you find yourself hesitant to change your routine. You know exactly what to expect at your regular spot: the menu, the service, and the atmosphere. Trying a new restaurant would mean stepping out of your comfort zone, dealing with the uncertainty of not knowing whether you'll like the food or the vibe, and potentially facing a disappointing experience.

This hesitation is an example of status quo bias. Your current dining routine is the baseline, and any deviation from this baseline feels like a risk. Even though the new restaurant could offer a better dining experience, you prefer to stick with the familiar because it feels safe and predictable.

DEFINITION

Status quo bias is that sneaky little tendency we all have to prefer things just the way they are. It's when we stick to our current situation or routine, even if a change could potentially improve things, simply because the familiar feels safe and comfortable. Our current state of affairs becomes our baseline, and any deviation from it—whether a potential gain or loss—feels like a risk. So, we end up favouring the familiar, viewing it as a positive and resisting change, even when it might be for the better.

EXAMPLES

Samuelson and Zeckhauser (1988) conducted an experiment to demonstrate status quo bias using a questionnaire. In this study, participants were presented with decision problems framed with and without a pre-existing status quo position.

What they found was that when participants were given a default option (the status quo), they were more likely to stick with it rather than choose an alternative. This tendency to stick with the status quo was stronger when there were more alternatives available to choose from.

Interestingly, the researchers also discovered that when individuals had a strong preference for one of the alternatives, the bias towards the status quo was weaker.

In simpler terms, people have a tendency to stick with what they're used to, especially when there's a default option presented to them. And the more choices they have, the stronger this bias becomes. However, if someone strongly prefers one of the alternatives, they're less likely to stick with the status quo.

In another study, participants were presented with a hypothetical choice task involving investment portfolios. In one version of the scenario, there was no status quo defined. Participants were asked to consider different options for investing their recently inherited money, including moderate-risk and high-risk companies, treasury bills, and municipal bonds.

In another version of the scenario, one of the options was designated as the status quo. Participants were told that a significant portion of their portfolio was already invested in a moderate-risk company.

What Samuelson and Zeckhauser found was fascinating. When there was no status quo defined, participants weighed their options fairly evenly. However, when one of the options was presented as the status quo, it became significantly more popular. Essentially, people were more inclined to stick with the current situation, even if it wasn't explicitly the best choice, simply because it was the default option.

This experiment demonstrates how the presence of a default option, or status quo, can strongly influence decision-making. It shows that people tend to prefer maintaining the current state of affairs, even when presented with potentially better alternatives.

To put it simply, they asked people to imagine they inherited money and needed to decide how to invest it. Some were given choices without any default option, like stocks or bonds. Others were told a chunk of their money was already in stocks. When there was no default option mentioned, people considered their choices evenly. But when one option was said to be the default, it became much more popular.

MERE-EXPOSURE EFFECT

"Repeated sight, fondness grows, familiarity's might, mere exposure shows."

Imagine you start a new job and meet a colleague named Sarah. At first, you don't know much about her, but you see her around the office every day. Over time, as you become more familiar with Sarah's presence and mannerisms, you find yourself starting to like her more. You feel more comforta-

ble striking up conversations with her, and you even begin to seek out her company during lunch breaks or team meetings.

What's happening here is the mere-exposure effect in action. Simply by being exposed to Sarah more frequently, you've developed a sense of familiarity and comfort with her. This familiarity has led to a natural increase in your liking and preference for her, even though you may not have had any significant interactions or formed strong opinions about her personality initially.

As another example, think about the music you listen to while driving to work every day. Maybe there's a particular song that always seems to come on the radio during your commute. At first, you might not pay much attention to it, but as days go by, you find yourself humming along to the tune without even realizing it.

Over time, that song becomes ingrained in your mind. You start to associate it with your morning routine, the sights you see on your way to work, and the feelings of anticipation as you start your day. Eventually, you begin to genuinely enjoy listening to it, even seeking it out on your playlist when you're not in the car.

This is the mere-exposure effect in action. Simply by being exposed to the song repeatedly, you've developed a liking for it. The familiarity breeds comfort and eventually leads to a genuine preference, even if the song wasn't your favourite at first.

In one study, researchers wanted to see if exposure to certain sounds before birth could influence preferences after hatching. They played tones of two different frequencies to groups of unhatched chicks. Once the chicks hatched, the same tones were

played to both groups. What they found was astonishing. Each set of chicks consistently chose the tone that had been played to them before they were even born. It's as if they had developed a preference for the familiar sound they had heard in the egg.

Moving on to human subjects, another experiment exposed two groups of people to Chinese characters for short periods. Afterwards, participants were asked to rate whether these symbols held positive or negative connotations. What's intriguing is that the symbols the participants had previously seen were consistently rated more positively than those they hadn't. It's as if the familiarity of the characters made them seem more favourable.

But it doesn't end there. In a similar experiment, people weren't asked to rate the symbols' connotations but to describe their mood after the experiment. Here's where it gets interesting. Members of the group exposed to certain characters repeatedly reported being in better moods than those who weren't. It's almost as if the mere exposure to those symbols had a subtle yet significant impact on their emotional state.

In 1980, psychologist Robert Zajonc introduced a fascinating concept known as the affective primacy hypothesis. Essentially, it suggests that our emotional responses, such as feelings of liking or disliking, can be triggered by minimal stimulus input, even before conscious cognitive processes kick in. Zajonc was intrigued by the idea that our emotional reactions might occur independently of conscious awareness or deliberate thought.

To put this hypothesis to the test, Zajonc conducted a series of experiments involving what are now known as mere-exposure effects. In these experiments, participants were ex-

posed to stimuli—typically images or symbols—for very brief durations, often below the threshold of conscious perception. Participants were then asked whether they had seen these stimuli before, with their responses typically at chance levels, indicating no conscious recognition.

Despite this lack of conscious awareness, participants consistently showed a preference or bias toward the stimuli they had been exposed to repeatedly. In other words, even though they couldn't consciously remember seeing the stimuli, they tended to feel more positive or favourable toward them compared to novel stimuli. This suggests that their emotional responses were influenced by the repeated exposure, even in the absence of conscious recognition.

Zajonc further investigated the impact of varying exposure durations on affective responses. He found that stimuli presented very briefly, below the threshold of conscious awareness, elicited faster and stronger affective responses compared to stimuli presented for longer durations, which allowed for conscious recognition. This suggests that our emotional responses can be triggered more rapidly and efficiently when stimuli are presented subliminally, bypassing conscious cognitive processing.

Overall, Zajonc's research provided compelling evidence for the affective primacy hypothesis, demonstrating that affective judgments can indeed be made without prior conscious cognitive processes. These findings shed light on the complex interplay between emotion and cognition, revealing that our feelings can sometimes lead the way, even before our conscious minds catch up.

ADVERTISING

Picture this: you're a college student scrolling through an article online, and those pesky banner ads keep popping up at the top of your screen. Annoying, right? But here's the twist: without even realizing it, those ads might be shaping your opinions. In a clever study, researchers found that students exposed more frequently to a particular banner ad actually rated it more favourably than others. It's like the more you see something, the more you start to like it, whether you're aware of it or not. This phenomenon, known as the mere-exposure effect, highlights how subtle exposure can influence consumer attitudes.

But hold on, it's not all sunshine and rainbows for advertisers. Another study found that companies with higher media exposure often end up with lower reputations, even if most of the coverage is positive. It turns out that exposure can lead to mixed feelings, creating both positive and negative associations. This ambivalence can muddy the waters for consumers, making it harder for them to form clear opinions.

So, when it comes to advertising, is there such a thing as too much exposure? Well, it's complicated. While exposure can be beneficial for new and unfamiliar products, there's no one-size-fits-all answer. Some studies suggest that an "optimal" level of exposure may not even exist.

But here's where it gets really interesting. In a fascinating experiment, researchers found that our emotions can play a major role in our purchasing decisions. When thirsty consumers were primed with a happy face before being offered a beverage, they not only bought more drinks but were also willing to pay

more for them. It's like our gut feelings can override our rational thoughts, influencing what we choose to buy.

PROPINQUITY EFFECT

Imagine you've just started a new job at a bustling office. Every day, you find yourself surrounded by the same group of co-workers. You share lunch breaks, collaborate on projects, and chat over coffee in the break room. Over time, these daily interactions start to feel like second nature, and before you know it, you've formed strong friendships with some of your colleagues.

This is the propinquity effect in action. The more time you spend with someone, the more likely you are to develop a bond with them. In the workplace, where interactions are frequent and unavoidable, propinquity plays a powerful role in shaping our relationships. It's not just about shared interests or personalities; it's about the simple fact that you're constantly in each other's company.

Think about it like this: when you see someone every day, you start to feel comfortable around them. You share inside jokes, confide in each other about work frustrations, and celebrate victories together. Before long, they become more than just co-workers—they become trusted friends.

But the propinquity effect isn't limited to the workplace. It can apply to any situation where people have regular, repeated interactions, whether it's in school, on a sports team, or even in your neighbourhood. The more you see someone, the more opportunities you have to connect with them on a deeper level.

So, the next time you find yourself forming a close bond with someone you see every day, remember the power of propinquity. It's not just chance or coincidence—it's the natural result of spending time together and building a sense of familiarity and camaraderie.

PYGMALION EFFECT

"High hopes ignite, success takes flight, Pygmalion's insight, greatness in sight."

Imagine you're a student starting a new school year. You're a little nervous, maybe even a tad worried. You want to do well, but you're not sure how you'll stack up against the other kids.

Now imagine your teacher walks in on the first day and announces, "This year, we have some incredible students who are going to achieve amazing things!" They might not say your name specifically, but you feel a spark of excitement. Maybe, just maybe, you could be one of those amazing students.

That's the Pygmalion Effect in action. It's this idea that when someone believes in you and expects great things from you, it can actually make you perform better. It's like a magic trick, but instead of pulling a rabbit out of a hat, the teacher pulls better performance out of you!

Here's the crazy part: in a famous experiment, researchers told teachers that some students (chosen at random) were destined to be "intellectual bloomers." Guess what? Even though

these students weren't any different from the others, they actually ended up doing better at the end of the year.

The secret sauce? The teachers, believing these students were special, probably treated them differently. Maybe they offered more encouragement, gave them more challenging work, or paid closer attention to their progress. This extra attention, in turn, boosted the students' confidence and helped them perform better.

The Pygmalion Effect isn't just about teachers and students. It applies to all kinds of situations. A coach who believes in their team, a parent who expects their child to succeed, even a friend who thinks you can achieve your goals – all of these can create a positive self-fulfilling prophecy.

DEFINITION

The Pygmalion effect is a psychological phenomenon in which high expectations lead to improved performance in a given area and low expectations lead to worse performance.

The name "Pygmalion Effect" comes from an ancient Greek myth about Pygmalion, a gifted sculptor. Pygmalion carved a statue of a woman so exquisite and lifelike that he fell in love with it. His love and belief were so strong that the statue eventually came to life. Similarly, when we set high expectations for others, it's like breathing life into their potential. They begin to live up to the elevated expectations set for them, transforming belief into reality.

But the Pygmalion Effect isn't just about positive expectations; it works both ways. When expectations are low, individu-

als may internalise these negative beliefs, leading to poorer performance. Imagine a workplace where a manager doubts an employee's abilities. This doubt might be subtle, perhaps expressed through lack of challenging assignments or limited positive feedback. The employee, sensing this lack of belief, may become less motivated, perform poorly, and fulfil the low expectations set for them. This negative cycle can be just as powerful and self-fulfilling as the positive one.

At its core, the Pygmalion Effect highlights the incredible influence that leaders, teachers, and even peers can have on someone's performance through their expectations. It suggests that our beliefs about others can significantly shape their outcomes. When we expect the best from people and communicate these expectations through our actions, we often see remarkable improvements. Conversely, when we harbour doubts and convey low expectations, we can inadvertently hamper someone's potential.

This effect has profound implications across various areas of life. In education, teachers who set high expectations for their students can inspire greater academic achievements. In the workplace, managers who believe in their team's potential can drive higher productivity and innovation. Even in personal relationships, believing in and encouraging our loved ones can help them achieve their best.

STUDENTS' VIEWS OF TEACHERS

In a classroom setting, this effect is particularly evident. Teachers, just like their students, are influenced by the expectations projected onto them. Imagine a scenario where teachers

are assigned to classrooms where students are instructed to either be attentive or inattentive. In this situation, teachers who experience attentive behaviour from students tend to rate their teaching skills higher. This suggests that the behaviour of students can reinforce a teacher's perception of their own abilities.

Further studies support this idea. When teachers were introduced to classrooms labelled as warm or cold, they began to align their behaviour with these expectations. In classrooms labelled as warm, teachers naturally gravitated towards a more positive and engaging teaching style, while in cold classrooms, their approach became more reserved.

This phenomenon extends beyond controlled experiments. In more naturalistic settings, when teachers were unaware of any preconditioned expectations but were placed in classrooms with students who were secretly instructed to behave in specific ways, the teachers still responded to these behaviours. For instance, if students behaved positively, teachers continued to maintain a high level of teaching performance, illustrating that the Pygmalion Effect occurs even without the teachers' conscious awareness.

Observational studies further reveal the impact of expectations. By examining the top and bottom 20% of students in a sixth-grade class, researchers found that teachers' expectations could influence student performance significantly. In schools where students are tracked and organized by ability, those in the higher tracks often benefit from heightened expectations, which in turn foster better academic outcomes. Conversely, students in lower tracks might suffer from diminished expectations, impacting their performance negatively.

The Pygmalion Effect underscores the importance of maintaining high expectations in educational environments. When teachers believe in their students' potential and convey this belief through their interactions, students are more likely to achieve higher levels of success. This principle can be applied beyond the classroom, in workplaces, and personal relationships, highlighting the universal power of positive expectations.

Application in the Workplace

The behaviour a leader directs at an employee can affect employee behaviour consistent with the leader's expectation. Leader expectations of an employee may alter leader behaviour. For example, a leader may expect an employee to be engaged in learning activities and in turn, the employee may engage in more learning, consistent with the idea self-fulfilling prophecy.

APPLICATION IN NURSING

The Pygmalion Effect isn't just limited to classrooms; it shows up in all sorts of unexpected places, making it one of those intriguing concepts that really gets you thinking about the power of belief.

Take nursing homes, for example. Imagine the environment where nurses are told that certain patients will make faster progress in their rehabilitation. This simple expectation can work wonders. Those patients often show lower levels of depression and end up needing less hospitalisation compared to those who were just expected to recover at an average pace. It's like the nurses' belief in their quicker recovery sparks something positive in the patients themselves.

This effect also plays a significant role in areas like addiction treatment. Think about therapists working with people struggling with alcohol dependence. If a therapist views their clients as "motivated," (= being determined and willing to work hard) something remarkable happens. These clients tend to stick with the program more consistently than those labelled as "unmotivated." The therapist's belief in their motivation seems to help clients see themselves as capable and determined, which in turn reduces dropout rates.

THE GOLEM EFFECT

The Golem Effect is a fascinating yet somewhat sobering phenomenon where low expectations lead to poorer performance, just in contrast to the Pygmalion effect, where high expectations lead up to better performance. Let's have an ultimate example, illustrating the impact of the Golem effect.

Imagine you're at work in a busy office environment. There's an employee named Nikhil, who recently joined the team. Right from the start, Nikhil's supervisor, Manoj, seems to doubt his capabilities. Perhaps it's because of Nikhil's inexperience or a few minor mistakes he made early on. Manoj doesn't provide Nikhil with challenging tasks, rarely offers constructive feedback, and often assigns him menial jobs that don't allow him to showcase his skills.

Over time, Nikhil starts to pick up on Manoj's low expectations. He notices that she never asks for his input during important meetings and that his assignments are always the simplest ones. This begins to affect Nikhil's confidence. He starts to believe that maybe Manoj is right – maybe he isn't capable of

handling more complex tasks. This doubt creeps into his performance. He becomes less engaged, stops seeking out new opportunities, and his work quality starts to decline.

This is the Golem Effect in action. Manoj's low expectations create a self-fulfilling prophecy. Nikhil's performance deteriorates not because he lacks ability, but because he internalises the low expectations placed upon him. This effect highlights how powerful and detrimental low expectations can be.

Conclusion:

Both phenomena illustrate the profound impact that expectations can have on individuals. While the Golem Effect shows how negative expectations can stifle potential and lead to poor outcomes, the Pygmalion Effect demonstrates how positive expectations can uplift and enhance performance. Understanding these effects underscores the importance of fostering an environment where positive reinforcement and high expectations prevail, enabling individuals to thrive rather than falter under the weight of low expectations.

FALSE MEMORY

"Memory's twist, events misconstrued, truth dismissed, false memory ensue."

In psychology, a false memory is a phenomenon where someone recalls something that did not actually happen or recalls it differently from the way it actually happened.

In 1974, Elizabeth Loftus and John Palmer conducted a study to investigate the effects of language on the development of false memory. The experiment involved two separate studies.

In the first study, 45 participants were randomly assigned to watch different videos of a car accident, in which separate videos had shown collisions at 20 mph, 30 mph and 40 mph. Afterwards, participants filled out a survey. The survey asked the question, "About how fast were the cars going when they smashed into each other?" The question always asked the same thing, except the verb used to describe the collision varied. Rather than smashed, other verbs used included bumped, collided, hit, or contacted. Participants estimated collisions of all speeds to average between 35 mph to just below 40 mph. If actual speed was the main factor in estimate, it could be assumed that participants would have lower estimates for lower speed collisions. Instead, the word being used to describe the collision seemed to better predict the estimate in speed rather than the speed itself.

The second experiment also showed participants videos of a car accident, but the phrasing of the follow-up questionnaire was critical in participant responses. 150 participants were randomly assigned to three conditions. Those in the first condition were asked the same question as the first study using the verb smashed. The second group was asked the same question as the first study, replacing smashed with hit. The final group was not asked about the speed of the crashed cars. The researchers then asked the participants if they had seen any broken glass, knowing that there was no broken glass in the video. The responses to this question had shown that the difference between whether broken glass was recalled or not heavily depended on the verb

used. A larger sum of participants in the "smashed" group declared that there was broken glass.

In this study, the first point brought up in discussion is that the words used to phrase a question can heavily influence the response given. Second, the study indicates that the phrasing of a question can give expectations to previously ignored details, and therefore, a misconstruction of our memory recall. This indication supports false memory as an existing phenomenon.

A presupposition is a subtle implication embedded within the way a question is phrased. For example, if someone asks, "What shade of blue was the wallet?" they are implicitly stating, "The wallet was blue. What shade was it?" This phrasing introduces an assumed "fact" that can influence how the respondent recalls the event.

Presuppositions can have two different effects: true effect and false effect.

True Effect: When the implication is accurate (the wallet really was blue), it strengthens the respondent's memory. Because the prompt confirmed the wallet's colour, the respondent is more likely to recall the wallet as blue and provide additional details more easily.

False Effect: When the implication is false (the wallet was not blue), it can trick the respondent into believing the wallet was blue. This false presupposition can then distort their memory, causing them to remember seeing a blue wallet even though it wasn't blue. This altered memory can influence their responses to subsequent questions, making their answers consistent with the false information.

Whether the presupposition is true or false, respondents often try to align their answers with the given information, assuming it to be correct.

Elizabeth Loftus's research on language manipulation highlights how these subtle shifts in wording can significantly impact memory recall. For instance, in studies on the misinformation effect, even a minor change in phrasing, such as using "the" instead of "a" before "stop sign," led more people to recall seeing a stop sign in a scene. The specific wording "the stop sign" implies that there definitely was a stop sign, which increases the likelihood of respondents remembering it that way.

In essence, the way we ask questions can profoundly shape and even distort memories, demonstrating the delicate and malleable nature of human memory.

The strength of verbs used in conversation or questioning also has a similar effect on the memory; for example – the words "met", "bumped", "collided", "crashed", or "smashed" would all cause people to remember a car accident at different levels of intensity. The words "bumped", "hit", "grabbed", "smacked", or "groped" would all paint a different picture of a person in the memory of an observer of sexual harassment if questioned about it later. The stronger the word, the more intense the recreation of the experience in the memory is. This in turn could trigger further false memories to better fit the memory created (change how a person looks or how fast a vehicle was moving before a collision).

One can trigger false memories by presenting subjects a continuous list of words. When subjects were presented with a second version of the list and asked if the words had appeared

on the previous list, they found that the subjects did not recognise the list correctly. When the words on the two lists were semantically related to each other (e.g. sleep/bed), it was more likely that the subjects did not remember the first list correctly and mix things up and create false memories.

In 1998, Kathleen McDermott and Henry Roediger III conducted a similar experiment. Their goal was to intentionally trigger false memories through word lists. They presented subjects with lists to study, all containing a large number of words that were semantically related to another word that was not found on the list. For example, if the word that they were trying to trigger was "river", the list would contain words such as flow, current, water, stream, bend, etc. They would then take the lists away and ask the subjects to recall the words on the lists. Almost every time, the false memory was triggered, and the subjects would end up recalling the target word as part of the list when it was never there. Other psychologists even went as far as informing the subjects of the purpose and details of the experiment, and still the subjects would recall the non-listed target word as part of the word list they had studied.

Subjects were brought into an office and instructed to wait. Then, they were asked to remember what they had seen in the office. Surprisingly, they recalled objects that fit the typical image of an office, even if those specific items weren't actually present. This suggests that our minds have a preconceived notion, or mental image, of what an office should look like, and we fill in the gaps in our memory accordingly.

In another study, subjects were presented with a situation where they witnessed a staged robbery. Half of the subjects wit-

nessed the robbery live, while the other half watched a video of the robbery as it took place. After the event, they were sat down and asked to recall what had happened during the robbery. The results surprisingly showed that those who watched the video of the robbery actually recalled more information more accurately than those who were live on the scene. Still, false memory presented itself in ways such as subjects seeing things that would fit in a crime scene that were not there, or not recalling things that did not fit the crime scene. This happened with both parties, displaying the idea of staged naturalistic events.

Specific false memories can sometimes transcend individual experiences and become shared by a large group of people, leading to what has been coined the "Mandela effect." This intriguing phenomenon was first brought to light by paranormal researcher Fiona Broome, who found herself grappling with a vivid and detailed memory of Nelson Mandela's death in prison during the 1980s. This memory persisted despite the fact that Mandela had actually passed away many years later, in 2013.

Broome's experience prompted her to delve deeper into the matter, leading her to create a website aimed at exploring how widespread this false memory might be and what factors could be contributing to it. Her investigation revealed that she was not alone in her recollection; in fact, "perhaps thousands" of other individuals had shared similar memories of Mandela's supposed demise in prison, particularly since around 2010.

This collective misremembering of historical events has sparked speculation and intrigue, with some even suggesting that it could be indicative of parallel realities or alternate timelines. The Mandela effect serves as a fascinating example of how false

memories can take hold on a societal scale, challenging our understanding of memory and perception.

One titillating example of collective false memories comes from a 2010 study examining people's recollections of the clock at Bologna Centrale railway station, which was damaged in the Bologna massacre bombing of August 1980. Surprisingly, 92% of respondents falsely remembered that the clock had remained stopped since the bombing. However, in reality, the clock had been repaired shortly after the attack. Years later, the clock was deliberately stopped and set to the time of the explosion as a form of remembrance and tribute to the tragic event.

This phenomenon isn't isolated to one instance. There are several other notable examples of shared false memories that have captured public attention. For instance, some people recall the title component of the Berenstain Bears children's books being spelled "Berenstein" instead. Others vividly remember the logo of the clothing brand Fruit of the Loom featuring a cornucopia, despite no such design ever existing.

In popular culture, there are also iconic lines and images that have been misremembered by many. Take, for instance, the famous scene from The Empire Strikes Back where Darth Vader reveals his true identity to Luke Skywalker. While many believe Vader says, "Luke, I am your father," the actual line is, "No, I am your father." Similarly, there's the misconception that Mr. Monopoly, the mascot of the popular board game, wears a monocle, when in fact he doesn't.

Perhaps one of the most perplexing examples is the supposed existence of a 1990s movie titled Shazaam, starring comedian Sinbad as a genie. Despite numerous people recalling

seeing this film, no evidence of its existence has ever been found. Instead, it's speculated that this false memory could be a mix-up of various real events, such as Sinbad wearing a genie-like costume during a TV marathon of Sinbad the Sailor movies in 1994, the movie Kazaam featuring Shaquille O'Neal as a genie, and the animated series Shazzan from the 1960s.

PEAK-END RULE

"Moment's zenith, experience judged, end's finish, peak–end nudge."

In an experiment conducted in 1993, participants were subjected to two versions of an unpleasant experience involving cold water.

In the first trial, subjects submerged one hand in 14 °C (57.2 °F) water for 60 seconds. This was quite uncomfortable as 14 °C water is very cold. In the second trial, subjects submerged their other hand in 14 °C water for 60 seconds, but then kept it submerged for an additional 30 seconds, during which the temperature was raised slightly to 15 °C (59 °F). Although the second trial lasted longer and involved more exposure to cold water, it ended on a relatively less uncomfortable note.

After experiencing both trials, participants were asked which trial they would prefer to repeat. Contrary to what one might expect, most participants chose to repeat the second trial, despite it being longer and including more overall discomfort. This preference goes against the law of temporal monotonicity,

which suggests that people would prefer a shorter duration of discomfort over a longer one.

The study concluded that participants preferred the longer trial because their memory of it was less unpleasant due to the slightly warmer ending. The less intense ending overshadowed the overall longer duration of discomfort. This study provided strong evidence for the *peak–end rule*, showing that the most intense point and the final part of an experience heavily influence our retrospective evaluation of it, even more so than the total sum of the experience.

Imagine you're at a concert. The music swells, the crowd roars, and you feel an electrifying surge of joy—this is the peak, the high point of your experience. Then, as the last note fades and the lights come up, there's a lingering sense of satisfaction, a feeling that stays with you as you leave the venue. This is the end. Now, let's talk about the rest of the concert. Maybe there were moments when the singer was off-key or the person next to you spilled their drink on your shoes. But strangely, those moments don't shape your memory as much. This is the essence of the peak–end rule.

DEFINITION

The peak–end rule is a fascinating psychological shortcut our brains use to evaluate experiences. Rather than considering every single moment, we zero in on two key points: the most intense part and the very end. It doesn't matter whether the experience was generally good or bad; what counts is how we felt during the peak and at the end. This rule applies to everything—

from thrilling concerts and exotic vacations to mundane meetings and stressful doctor's visits.

What makes this heuristic so intriguing is that it defies what we might expect. You'd think all the little ups and downs would add up to a comprehensive memory of the event. But no, our brains are more interested in the highlights and the finales. So next time you're planning something important, remember this: create a memorable peak and a strong finish. That's what people will remember, even if the rest is a bit of a blur.

In a clever experiment, researchers had people interact with a computer program that made them wait before being served. They found that how people felt at the very end of their wait was the strongest predictor of their overall satisfaction. Even if the wait was long and frustrating, a quick and satisfying finish made the entire experience seem better.

In another study, patients undergoing colonoscopies were split into two groups. One group had the standard procedure, while the other had an extra three minutes of mild discomfort at the end. Surprisingly, the group with the extended procedure rated their experience as less unpleasant. The key was the less painful ending, which left a more positive overall impression and made them more willing to return for future procedures.

A landmark study in 1993 titled "When More Pain Is Preferred to Less: Adding a Better End" illustrated this phenomenon. Participants were subjected to two versions of an unpleasant experience involving cold water.

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°C water is very cold. In the second trial, subjects submerged their other hand in 14 °C water for 60 seconds, but then kept it submerged for an additional 30 seconds, during which the temperature was raised slightly to 15 °C (59 °F). Although the second trial lasted longer and involved more exposure to cold water, it ended on a relatively less uncomfortable note.

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Similarly, a 1996 study assessed patients' appraisals of uncomfortable colonoscopy or lithotripsy procedures and correlated the remembered experience with real-time findings. They found that patients consistently evaluated the discomfort of the experience based on the intensity of pain at the worst (peak) and final (end) moments. This occurred regardless of length or variation in intensity of pain within the procedure.

SAVVY PRICING FOR YOUR BRAND

Imagine you're a shop owner trying to manage your product prices. Sometimes, raising your prices a bit higher than usual can help reset what your customers think is a fair price. However, you need to be careful with this approach:

Raise Prices Occasionally: Don't do it too often or for too long. If you change prices too frequently, your customers might get confused and think your store is unreliable. If prices stay high for too long, they might think your products are too expensive and stop buying them altogether.

Best for Frequently Bought Items: This strategy works best for items people buy often, like groceries, music, or perfumes. Since people buy these things regularly, losing a few sales during a high-price period won't hurt you much in the long run.

On the other hand, offering big discounts can have its downsides:

Avoid Huge Discounts: Big discounts might attract customers now, but they can hurt your business in the future. Customers will remember these low prices and expect them again, making it hard to sell at regular prices later.

Temporary Price Hikes: Raising prices temporarily can help adjust what customers think is a fair price, but this effect doesn't last long. You'll need to find a balance to maintain a good price perception.

In short, be strategic with your pricing. Occasionally raising prices can help reset customer expectations, but avoid big discounts to keep your brand's value strong.

Ben Franklin Effect

"Favor bestowed, affinity grows, cognitive dissonance knows, Ben Franklin's close."

Students are invited to participate in a Q&A competition, lured by the promise of winning some cash. Sounds exciting, right? After the competition wraps up, imagine being one of those lucky winners, basking in the glow of victory. But then comes an unexpected twist.

A third of the victorious students are approached by the researcher himself, who humbly asks for the money back, citing his own financial woes. Another third receive a request from a secretary, stating that the psychology department is low on funds and needs the money back. And the final third? They're left untouched, spared from any refund request.

Now, here's where it gets really intriguing. All three groups are later asked a simple question: How much do you like the researcher? Surprisingly, the results paint a clear picture. The group approached directly by the researcher himself expresses the highest level of liking towards him. Conversely, the group asked by the intermediary, the secretary, shows the lowest level of fondness.

To illustrate using a practical example, Let's say you've always been somewhat sceptical of a colleague at work, Shyam. You've never quite seen eye-to-eye, and there's been a bit of tension between you two. However, one day, Shyam approaches you asking for some assistance with a project he's been struggling with. Despite your reservations, you decide to lend him a hand because you believe in teamwork and want to foster a positive work environment.

As you work alongside Shyam, you start to notice his dedication, intelligence, and willingness to learn from your guidance. He's receptive to feedback, puts in extra effort to understand complex concepts, and shows genuine appreciation for your help. You find yourself enjoying the collaboration more than you expected and feeling a sense of satisfaction as you see Shyam's skills improve with your assistance.

As the project progresses, you realise that your initial perceptions of Shyam were somewhat off the mark. You begin to admire his strengths, respect his work ethic, and genuinely enjoy working with him. By offering your help and seeing first-hand the positive impact it has on Shyam and the project, you've inadvertently developed a newfound liking and respect for him.

In essence, the act of doing a favour for someone can lead to a shift in our perceptions and attitudes towards that person, fostering a sense of connection and goodwill between individuals who may have previously had strained relationships.

Similarly, imagine you're helping out a friend with a favour – maybe lending a hand with moving furniture or proofreading their resume. According to the Ben Franklin effect, you're not

just doing them a favour – you're actually boosting your own liking for them in the process.

So, what's going on here? Well, it all comes down to a little thing called cognitive dissonance. You see, when you do something nice for someone, but you don't particularly like them, it creates this inner tension. Your actions don't match up with your feelings, and that can feel pretty uncomfortable.

But our brains are pretty clever at finding ways to resolve this discomfort. Instead of admitting that we helped someone we don't like, we start to convince ourselves that we must actually like them after all. It's like our brains do a little mental gymnastics to make everything line up neatly.

So, the next time you find yourself lending a hand to someone you're not too fond of, don't be surprised if you start feeling a little warmer towards them afterward. It's just your brain's way of making sense of the situation and keeping things in harmony.

DEFINITION

The Ben Franklin effect is a psychological phenomenon where individuals develop a greater affinity for someone after performing a favour for them, as illustrated by examples above. This tendency is primarily attributed to cognitive dissonance, where individuals reconcile their actions with their attitudes by convincing themselves that they must like the person they helped.

BENJAMIN FRANKLIN: AN EXCITING EVENT

Benjamin Franklin once shared a timeless piece of wisdom: "He that has once done you a kindness will be more ready to do you another, than he whom you yourself have obliged." This nugget of insight hints at a curious psychological phenomenon known as the Ben Franklin effect.

In Franklin's own life, he encountered a rival legislator who harboured animosity towards him. Rather than engage in a battle of egos, Franklin took a different approach. He discovered that his adversary possessed a rare and intriguing book, so he penned a humble note requesting to borrow it. Surprisingly, his rival graciously obliged. Franklin returned the book promptly, accompanied by a heartfelt thank-you note.

Remarkably, this simple act of requesting a favour changed the dynamic between them. The once-hostile legislator began treating Franklin with civility and even offered his assistance whenever needed. Through the power of the Ben Franklin effect, what started as a transaction of borrowed books blossomed into a genuine friendship that endured until his rival's passing.

In a fascinating 1971 experiment participants were unwittingly roped into administering learning tests to fellow participants posing as students. Here's how it went down:

The participants, acting as teachers, were instructed to guide their "students" through a task involving tapping out patterns on wooden cubes. Each teacher had two students, and they were tasked with trying out two different teaching methods with each student. In one scenario, the teachers offered encouragement when the student performed well, while in the other scenario, they criticized and insulted the student for any mistakes.

After the experiment, the teachers were asked to fill out a questionnaire about how they perceived the students. T results showed a clear pattern: the students who had been subjected to insults were consistently rated as less attractive and likable compared to those who received encouragement. This suggests that the teachers' behaviour towards the students directly influenced their perception of them. Specifically, when the teachers were kind and encouraging, they tended to view the students more positively, finding them more attractive and likable. Conversely, when the teachers were rude and critical, they had a more negative impression of the students, perceiving them as less attractive and likable. This highlights the impact of our own actions on how we perceive others.

DECOY EFFECT

"Trio's allure, choice ensured, decoy's entice, preference procured."

Imagine you're at a movie theatre trying to decide between two popcorn sizes: a regular size for $5 and a large size for $8. You're leaning towards the regular size because it's cheaper and seems like a good value. However, when the cashier mentions a jumbo size for $10, suddenly the regular size seems like a better deal in comparison.

Even though the jumbo size is significantly more expensive and might be too much popcorn for you, its presence makes the large size seem like a more reasonable choice. In this scenario, the jumbo size serves as the decoy, influencing your decision by

making the large size appear more attractive than it would have been on its own.

This is the decoy effect in action. By introducing an inferior option (the jumbo size) that is asymmetrically dominated by the large size in terms of price and quantity, the theatre increases the likelihood that you'll choose the large size over the regular size. It's a clever marketing tactic that exploits how our brains perceive value and make decisions.

Let's quickly have the definition of the Decoy effect, and then we'll have some interesting example.

DEFINITION

The decoy effect, also known as the attraction effect or asymmetric dominance effect, is a phenomenon in marketing where consumers' preferences between two options change when a third option is introduced. This third option, known as the decoy, is deliberately inferior to one option and partially inferior to the other. Its presence influences consumers to prefer the dominating option over the other, leading to a specific change in preference. This effect violates the independence of irrelevant alternatives axiom in decision theory. In simpler terms, the presence of an unattractive third option can alter how consumers perceive and choose between the other two options.

EXAMPLES

Suppose there is a consideration set (options to choose from in a menu) that involves smartphones. Consumers will generally see higher storage capacity (number of GB) and lower price as positive attributes; while some consumers may want a device

that can store more photos, music, etc., other consumers will want a device that costs less. In Consideration Set 1, two devices are available:

Consideration Set 1

	A	B
price	₹33,000	₹25,000
storage	300GB	200GB

In this case, some consumers will prefer A for its greater storage capacity, while others will prefer B for its lower price.

Now suppose that a new player, C, the "decoy", is added to the market; it is more expensive than both A, the "target", and B, the "competitor", and has more storage than B but less than A:

	A (target)	B (competitor)	C (decoy)
price	₹33,000	₹25,000	₹38,000
storage	300GB	400GB	250GB

Consideration Set 2

The addition of decoy C — which consumers would presumably avoid, given that a lower price can be paid for a model with more storage—causes A, the dominating option, to be chosen more often than if only the two choices in Consideration Set 1 existed; C affects consumer preferences by acting as a basis of comparison for A and B. Because A is better than C in both respects, while B is only partially better than C, more consumers will prefer A now than did before. C is therefore a decoy whose sole purpose is to increase sales of A.

Conversely, suppose that instead of C, a player D is introduced that has less storage than both A and B, and that is more expensive than B but not as expensive as A:

	A (target)	B (competitor)	C (decoy)
price	₹33,000	₹25,000	₹30,000
storage	300GB	400GB	150GB

Consideration Set 3

The result here is similar: consumers will not prefer D, because it is not as good as B in any respect. However, whereas C increased preference for A, D has the opposite effect, increasing preference for B.

Another example shown in Dan Ariely's book Predictably Irrational was a true case used by The Economist magazine. The subscription screen presented three options:

1. Economist.com subscription - US $59.00. One-year subscription to Economist.com. Includes online access to all articles from The Economist since 1997
2. Print subscription - US $125.00. One-year subscription to the print edition of The Economist
3. Print & web subscription - US $125.00. One-year subscription to the print edition of The Economist and online access to all articles from The Economist since 1997

Given these choices, 16% of the students in the experiment conducted by Ariely chose the first option, 0% chose the middle option, and 84% chose the third option. Even though nobody picked the second option, when he removed that option the

result was the inverse: 68% of the students picked the online-only option, and 32% chose the print and web option.

Let's consider an ultimate example:

Consider a set of laptops available for purchase. Consumers generally see higher processing speed (GHz) and lower price as positive attributes. Initially, two laptops are available:

	Laptop A	Laptop B
Price	₹50,000	₹40,000
Speed	2.5 GHz	2.0 GHz

In this case, some consumers will prefer Laptop A for its greater processing speed, while others will prefer Laptop B for its lower price.

Now suppose a new player, Laptop C, is introduced into the market:

	Laptop A (Target)	Laptop B	Laptop C (Decoy)
Price	₹50,000	₹40,000	₹55,000
Speed	2.5 GHz	2.0 GHz	2.2 GHz

The addition of Laptop C — which is more expensive than both A and B and has better speed than B but less than A — causes A, the dominating option, to be chosen more often than if only A and B existed. Consumers perceive Laptop A as the superior choice in both price and speed compared to C, while Laptop B is only partially better. Therefore, more consumers

will prefer Laptop A, making C a decoy that increases the preference for A.

To summarise, the decoy effect is a powerful psychological phenomenon that subtly steers consumer preferences by introducing a strategically positioned option that no one is expected to choose. This seemingly irrelevant third choice amplifies the attractiveness of the target option, manipulating perceptions and decision-making processes. Understanding and leveraging the decoy effect can provide businesses with a potent tool to influence consumer behaviour and drive sales. By recognizing this effect, consumers can also become more aware of how their choices are being shaped, enabling them to make more informed decisions.

THE BARNUM-FORER EFFECT

"Personalized flair, traits seem rare, Barnum's snare, relatable air."

Imagine you walk into a party, and you meet someone who is an amateur astrologer. They ask for your zodiac sign and then proceed to give you a personality reading based on it. You tell them you are a Libra, and they say:

"Ah, Libras! You are generally diplomatic and enjoy harmony in your relationships. You have a strong sense of fairness and justice, and you often find yourself trying to balance different aspects of your life. You can be indecisive at times but once you make up your mind, you stick to your decision. You value beauty and aesthetics, and you are often seen as charming and social.

However, you sometimes struggle with confrontation and might avoid it to keep the peace."

As you listen, you are struck by how accurate the description feels. You think to yourself, "Yes, that is so me!" You might even be amazed at how well this person seems to understand you just from knowing your zodiac sign.

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However, let's break down the description and see how it can apply to almost anyone:

- Diplomatic and enjoy harmony: Most people prefer peaceful interactions and value harmony in relationships.

- Strong sense of fairness and justice: Many people believe in fairness and justice.
- Trying to balance different aspects of life: Everyone juggles various responsibilities and strives for balance.
- Indecisive at times but stick to decisions once made: Indecision is common, and most people feel confident once they finally make a decision.
- Value beauty and aesthetics: Most people appreciate beauty in some form, whether it's nature, art, or personal style.
- Struggle with confrontation: Avoiding confrontation is a common tendency for those who prefer peace.
- This vague, general description can apply to a wide range of people, not just those born under the sign of Libra. This is the Barnum effect in action. The statements are broad enough to resonate with almost anyone, which makes the astrology reading feel personalized and accurate even though it is not.

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DEFINITION

The Barnum effect, also known as the Forer effect, or less frequently as the Barnum-Forer effect, is a fascinating and very

relatable psychological phenomenon. Imagine this: you've just received a personality reading that seems incredibly accurate. It feels like the description is tailored specifically to you, hitting the nail on the head with every trait and behaviour. However, here's the twist—this so-called personalized description is actually quite vague and broad, and it can apply to a wide range of people, not just you.

This effect is why so many of us find ourselves nodding in agreement with horoscopes, fortune tellers, and even certain personality tests. It's that moment when you read your zodiac sign's traits or get your palm read, and you think, "Wow, that's exactly who I am!" In reality, the description is crafted in such a way that almost anyone can see themselves in it.

The term "Barnum effect" was coined in 1956 by psychologist Paul Meehl. He named it after the famous showman P. T. Barnum, who was known for his ability to appeal to a broad audience with his clever marketing tactics. Barnum famously said, "There's a sucker born every minute," reflecting how he could captivate people with his shows. Similarly, these broad personality descriptions captivate us by making us feel uniquely understood when, in fact, they are designed to be universally applicable.

But let's take a step back to where it all began. The phenomenon was first identified by psychologist Bertram Forer in 1949. Forer conducted an experiment where he gave his students a personality test, but instead of giving them individualized results, he gave everyone the same generic description. The students were then asked to rate the accuracy of their "unique" personality profile on a scale from 0 to 5. Amazingly, the average rating

was 4.26, with many students believing that the description was a spot-on reflection of their personality. Forer called this the "fallacy of personal validation."

Here's where it gets even more interesting: these generic descriptions often include a mix of positive traits and common experiences, such as "You have a need for other people to like and admire you," or "You have a great deal of unused capacity which you have not turned to your advantage." Who wouldn't agree with those statements? They are designed to be universally true and, therefore, feel personal to each reader.

The Barnum effect explains why astrology, fortune telling, aura reading, and various personality tests are so compelling. They make us feel special and understood, tapping into our innate desire for validation. Even though the descriptions are not as unique as they seem, they resonate deeply because they reflect general human experiences and desires.

Imagine this: It's 1947, and psychologist Ross Stagner has just asked a group of personnel managers to take a personality test. After they had taken the test, Stagner, instead of responding with feedback based on their actual individual answers, presented each of them with generalized feedback that had no relation to their test answers but that was, instead, based on horoscopes, and the like. Surprisingly, when Stagner asks them how accurate the assessments are, more than half of the managers say they're spot on. Hardly anyone thinks the feedback is wrong.

Fast forward to 1948 for another eye-opener. Psychologist Bertram Forer conducts what's now known as a "classic experiment." He gives a psychology test, called the "Diagnostic Interest Blank," to 39 of his students, promising them personalized

personality profiles based on their results. A week later, Forer hands each student their supposed personalized profile and asks them to rate its accuracy. Here's the kicker: every student receives the exact same profile. Here's what it said:

- You have a great need for other people to like and admire you.
- You have a tendency to be critical of yourself.
- You have a great deal of unused capacity which you have not turned to your advantage.
- While you have some personality weaknesses, you are generally able to compensate for them.
- Your sexual adjustment has presented problems for you.
- Disciplined and self-controlled outside, you tend to be worrisome and insecure inside.
- At times you have serious doubts as to whether you have made the right decision or done the right thing.
- You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations.
- You pride yourself as an independent thinker and do not accept others' statements without satisfactory proof.
- You have found it unwise to be too frank in revealing yourself to others.
- At times you are extroverted, affable, sociable, while at other times you are introverted, wary, reserved.

- Some of your aspirations tend to be pretty unrealistic.
- Security is one of your major goals in life.

The students, unaware they all got the same profile, rate its accuracy at an average of 4.30 out of 5. Only after they turn in their ratings does Forer reveal that everyone received an identical profile he had pieced together from a newsstand astrology book.

Forer called this phenomenon the "fallacy of personal validation." It shows just how easily we can be fooled into thinking that a vague, general statement is a precise description of our unique selves. This effect, later dubbed the "Barnum effect," highlights our gullibility and our tendency to accept positive feedback more readily than negative. It's a bit like reading your horoscope and feeling like it was written just for you when, in reality, it's meant to resonate with millions of people.

So next time you find yourself nodding along to a personality test, a horoscope, or any other kind of general assessment, remember the Barnum effect. It's a fascinating reminder of how our minds can play tricks on us, making us see specificity in what's actually very broad and general.

Later studies have found that subjects give higher accuracy ratings if the following are true:

- The subject believes that the analysis is personalized, and thus applies personal meaning to the statements.

- The subject believes in the authority of the evaluator.
- The analysis lists mainly positive traits.

How Cold Reading Tricks Us All

In 1977, Ray Hyman exposed how tricksters exploit the Forer effect to deceive people. They use a mix of confidence, creative use of statistics, and gimmicks like crystal balls or tarot cards to seem credible. By paying attention to details like a person's clothing and mannerisms, they can tailor their readings to appear shockingly accurate. Flattery and theatrical flair also help sell their act.

Michael Birnbaum, a psychology professor, highlights that magicians, psychics, and certain TV personalities use this technique, known as "cold reading," to appear insightful. Real psychologists are appalled by this, but they don't criticize it publicly enough, allowing the practice to gain undue respect. Denis Dutton noted that the success of cold reading fuels belief in paranormal powers, and he called for more analysis of these techniques by academic psychologists.

Birnbaum sums it up perfectly: "Self-validation is no validation. Don't be fooled by a psychic, quack therapist, or phony faith healer using this trick. Be sceptical, ask for proof, and keep your money safe."

Ambiguity Effect/Bias

"Known allure, ambiguity's demur, clarity's allure, choice secure."

Picture this: You're standing in front of a menu at a new restaurant in town, trying to decide between two dishes. One is a classic favourite you've had countless times before, and the other is a unique concoction you've never heard of. The catch? The classic dish comes with a full description, detailing its ingredients, cooking method, and even customer reviews. But the unique dish? It's just listed with a fancy name and a vague hint at its flavour profile.

Now, despite your adventurous spirit and curiosity about the unknown, chances are you'll lean towards the classic dish. Why? Because there's a comfort in knowing exactly what you're getting. The ambiguity surrounding the unique dish leaves too much room for doubt and uncertainty. Sure, it could be a flavour explosion that delights your taste buds and earns you bragging rights among your friends. But it could also be a disappointing flop that leaves you wishing you'd played it safe.

So, what do you do? You go with the familiar, the tried-and-tested option where the probability of a favourable outcome is crystal clear. It might not be the most exciting choice, but at least you know you won't be left wondering what might have been.

Similarly, imagine you're shopping for a new smartphone. You're torn between two models: one from a well-established brand with a proven track record, and another from a lesser-known brand that boasts cutting-edge features but lacks extensive user reviews. Despite the allure of the innovative features

offered by the lesser-known brand, you find yourself gravitating towards the established brand. Why? Because you're more confident in the known reliability and performance of the established brand, even if it means foregoing some potentially exciting new features. In this scenario, the ambiguity effect influences your decision-making, leading you to prioritize the certainty of a favourable outcome with the known brand over the uncertainty surrounding the lesser-known brand.

The ambiguity effect, by definition, is our inclination to choose options with known probabilities over those with uncertain outcomes, highlighting our preference for certainty in decision-making. When presented with choices, individuals often exhibit a tendency to favour options where the probability of a favourable outcome is known, as opposed to options with uncertain outcomes. This preference for certainty reflects a natural inclination to mitigate risk and seek clarity in decision-making processes.

As an additional example, consider a bucket containing 30 balls. The balls are either red, black or white. Ten of the balls are red, and the remaining 20 are either black or white, with all combinations of black and white being equally likely. In option X, drawing a red ball wins a person $100, and in option Y, drawing a black ball wins them $100. The probability of picking a winning ball is the same for both options X and Y. In option X, the probability of selecting a winning ball is 1 in 3 (10 red balls out of 30 total balls). In option Y, despite the fact that the number of black balls is uncertain, the probability of selecting a winning ball is also 1 in 3. This is because the number of black balls is equally distributed among all possibilities between 0 and 20. The difference between the two options is that in option X, the

probability of a favourable outcome is known, but in option Y, the probability of a favourable outcome is unknown ("ambiguous").

In spite of the equal probability of a favourable outcome, people have a greater tendency to select a ball under option X, where the probability of selecting a winning ball is perceived to be more certain. The uncertainty as to the number of black balls means that option Y tends to be viewed less favourably. Despite the fact that there could possibly be twice as many black balls as red balls, people tend not to want to take the opposing risk that there may be fewer than 10 black balls. The "ambiguity" behind option Y means that people tend to favour option X, even when the probability is the same.

FUNCTIONAL FIXEDNESS

"Routine's grip, innovation's skip, functional fixedness trip, problem-solving dip."

In an experiment conducted by Duncker in 1945, participants were given a candle, a box of thumbtacks, and a book of matches. Their task was to attach the candle to the wall in such a way that it wouldn't drip wax onto the table below. What Duncker observed was intriguing: most participants attempted to attach the candle directly to the wall using the thumbtacks or by melting it and sticking it to the wall with wax. However, very few of them considered an alternative solution.

The key insight came from repurposing the materials in an unconventional way. Instead of fixating on the traditional func-

tion of the items, participants who succeeded in solving the problem realised they could use the box of thumbtacks as a candle holder by attaching it to the wall. This allowed them to elevate the candle above the table without any risk of wax dripping.

In Duncker's terms, the participants were "fixated" on the box's normal function of holding thumbtacks and could not reconceptualize it in a manner that allowed them to solve the problem. For instance, participants presented with an empty tack box were two times more likely to solve the problem than those presented with the tack box used as a container.

As a real-life example, it should be worth mentioning this: In the early days of space exploration, engineers faced a challenge in designing a pen that would work in zero gravity. They spent significant time and resources developing a specialized pen with a pressurized ink cartridge. Meanwhile, the Soviet Union approached the same problem differently. Instead of reinventing the pen, they opted to use pencils, which were already proven to work in zero gravity. This illustrates how functional fixedness can lead to overlooking simple, existing solutions in favour of complex ones.

DEFINITION

Functional fixedness is a cognitive bias that limits a person to use an object only in the way it is traditionally used. Psychologists define functional fixedness as being a mental block against using an object in a new way that is required to solve a problem. This "block" limits the ability of an individual to use components given to them to complete a task, as they cannot move past the original purpose of those components. For ex-

ample, if someone needs a paperweight, but they only have a hammer, they may not see how the hammer can be used as a paperweight. Functional fixedness is this inability to see a hammer's use as anything other than for pounding nails; the person couldn't think to use the hammer in a way other than in its conventional function.

Interestingly, when testes, it is found that 5-year-old children don't exhibit signs of this bias. At this age, they view all potential uses of an object equally. However, by age 7, children begin to prioritize an object's intended purpose, making it harder to think outside the box.

THE TWO-CORDS PROBLEM

In an experiment, names quite famously as 'the two-cords problem', used to illustrate the phenomenon of functional fixedness, subjects would be given 2 cords hanging from the ceiling, and 2 heavy objects in the room. They are told they must connect the cords, but they are just far enough apart that one cannot reach the other easily. The solution was to tie one of the heavy objects to a cord and be a weight, and swing the cord as a pendulum, catch the rope as it swings while holding on to the other rope, and then tie them together. The participants are split into 3 groups: Group R, which completes a pretask of completing an electrical circuit by using a relay, Group S, which completes the circuit with a switch, and Group C which is the control group given no pre-test experience. Group R participants were more likely to use the switch as the weight, and Group S were more likely to use the relay. Both groups did so because their previous experience led them to use the objects a certain

way, and functional fixedness did not allow them to see the objects as being used for another purpose.

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In the dance of dawn, where dreams take flight,

Embrace the journey, chase the light.

Through trials untold, and storms that may roar,

In the depths of your soul, find strength at the core.

With every setback, let resilience rise,

In the face of fear, see courage in your eyes.

For within you burns a fire so bright,

A beacon of hope in the darkest night.

In the symphony of life, each note you play,

Weave your story, in your own unique way.

Embrace the challenges, with faith unswayed,

For with every step forward, a path is laid.

So rise, oh soul, with wings unfurled,

Let your spirit soar, let your dreams be heard.

In the rhythm of life, find your beat,

And dance to the melody of your own heartbeat.

[THANKS FOR READING!]